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**Summer 2005 Semester**

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<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 23</td>
<td>Monday</td>
<td>First undergraduate session begins.</td>
</tr>
<tr>
<td>June 23</td>
<td>Thursday</td>
<td>First undergraduate session ends.</td>
</tr>
<tr>
<td>July 4</td>
<td>Monday</td>
<td>Fourth of July Holiday - no classes.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Memorial Day Holiday - no classes.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Second undergraduate session begins.</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>First undergraduate session ends.</td>
</tr>
</tbody>
</table>

**Fall 2005 Semester**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 29</td>
<td>Monday</td>
<td>Classes begin.  First day to apply for a course through Pass/Fail program.</td>
</tr>
<tr>
<td>September 5</td>
<td>Monday</td>
<td>Labor Day Holiday - no classes.</td>
</tr>
<tr>
<td></td>
<td>Wednesday</td>
<td>Drop/Add period ends.  Last day to apply for a course through Pass/Fail program.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Withdrawal from courses begins.  90% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>50% total withdrawal credit.</td>
</tr>
<tr>
<td>October 3</td>
<td>Monday</td>
<td>25% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Fall Holiday - no classes.  25% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Tuesday</td>
<td>Fall Holiday - no classes.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>End of first quarter.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Spring 2006 course schedule available online.  Spring 2006 Advisement Guide available online.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>25% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>Spring 2006 registration begins for undergraduate students with 84.0 credit hours or more.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>No withdrawal refund credit.</td>
</tr>
</tbody>
</table>

**Spring 2006 Semester**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 16</td>
<td>Monday</td>
<td>Martin Luther King Day - no classes.</td>
</tr>
<tr>
<td></td>
<td>Tuesday</td>
<td>First day to apply for a course through Pass/Fail program.</td>
</tr>
<tr>
<td></td>
<td>Wednesday</td>
<td>Drop/Add period ends.  Last day to apply for a course through Pass/Fail program.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Withdrawal from courses begins.  90% total withdrawal credit.</td>
</tr>
<tr>
<td>February 6</td>
<td>Monday</td>
<td>50% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>50% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>President’s Day Holiday - no classes.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>25% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Tuesday</td>
<td>President’s Day Holiday - no classes.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>25% total withdrawal credit.</td>
</tr>
<tr>
<td>March 3</td>
<td>Friday</td>
<td>End of third quarter.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>25% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Spring Recess - no classes.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>25% total withdrawal credit.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Classes resume.</td>
</tr>
<tr>
<td></td>
<td>Tuesday</td>
<td>No withdrawal refund credit.</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>Fall 2006 course schedule online.  Fall 2006 Advisement Guide online.</td>
</tr>
<tr>
<td>April 1</td>
<td>Saturday</td>
<td>Fall 2006 registration begins for undergraduate students with 72.0 credit hours or more.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Summer 2006 registration begins.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>Last day to withdraw from a course.</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>Fall 2006 registration begins for undergraduate students with 42.0 - 71.0 credit hours.</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>Easter Recess - no classes.</td>
</tr>
<tr>
<td></td>
<td>Sunday</td>
<td>Easter</td>
</tr>
<tr>
<td></td>
<td>Tuesday</td>
<td>Classes resume.</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>Fall 2006 registration begins for undergraduate students with 0.0 - 41.0 credit hours.</td>
</tr>
<tr>
<td>May 1</td>
<td>Monday</td>
<td>Final exams begin.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>Final exams end.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>First day to withdraw from Pass/Fail program.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>Classes end.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>Last day to withdraw from Pass/Fail program.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Final exams begin.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>Final exams end.</td>
</tr>
<tr>
<td></td>
<td>Wednesday - Saturday</td>
<td>Commencement Events - to be announced.</td>
</tr>
<tr>
<td></td>
<td>Wednesday</td>
<td>Thanksgiving Recess begins - no classes.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Classes resume.</td>
</tr>
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</table>

**December**

<table>
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<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 5</td>
<td>Monday</td>
<td>First day to withdraw from Pass/Fail program.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>Classes end.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>Last day to withdraw from Pass/Fail program.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Final exams begin.</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>Final exams end.</td>
</tr>
<tr>
<td></td>
<td>Wednesday</td>
<td>Thanksgiving Recess begins - no classes.</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>Classes resume.</td>
</tr>
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The College and Its Mission

Founded by the Jesuits in 1870, Canisius College is an independent, co-educational, medium sized institution of higher education conducted in the Catholic and Jesuit tradition. It offers undergraduate programs built upon a liberal arts core curriculum, leading to associate and baccalaureate degrees, plus graduate programs in business, education and other professional fields, leading to the master's degree.

Canisius espouses the ideal of academic excellence along with a sense of responsibility to use one's gifts for the service of others and the benefit of society. It seeks to promote the intellectual and ethical life of its students, helping to prepare them for productive careers as well as for meaningful personal lives and positive contributions to human progress. Its curricular and co-curricular programs are designed to educate the whole person through the development of intellectual, moral, spiritual and social qualities. It aims to promote the contemporary Jesuit mission of the service of faith and the promotion of justice.

As a Catholic institution that welcomes all who share in its quest, Canisius will:

- foster an atmosphere of understanding and respect in dialogue with other intellectual and spiritual traditions;
- teach the responsible use of human freedom in a value-oriented curriculum and co-curriculum that incorporate concern for spiritual and human factors as well as more pragmatic ones;
- continue the Jesuit principle of care for individual persons;
- emphasize excellence in teaching, marked by intellectual vigor, close student-faculty relations, and an expectation of active rather than passive learning;
- prepare students to assume positions of leadership in church and society;
- foster a sense of community among its students and staff through personal interaction marked by friendliness, respect, openness and integrity;
- take advantage of its location in a major urban center on an international border to serve the community and the world, and to play a significant role in fashioning the world of the 21st century by contributing its own special blend of academic excellence, personal concern and an optimistic commitment to the future.

As an urban college, Canisius enjoys a special relationship with the City of Buffalo. The concept of community service on which the college prides itself is best evidenced by the large number of Canisius graduates who have occupied important positions in the professional, educational, commercial and political life of the city and its surrounding communities. Buffalo's largest private college is named after Saint Peter Canisius, a 16th century Dutch scholar. The college's founders were guided by the same educational ideals that inspired several European universities and initiated a tradition of service to student and community.

Starting out as a single building in the center of downtown Buffalo, Canisius College has since expanded to cover the more than 36 acres of its dual campus on Main Street. It is easily accessible by expressway, subway and bus routes. In addition to the College of Arts and Sciences, Canisius includes the Richard J. Wêle School of Business, the School of Education and Human Services, a Graduate Division, and a Summer Session, with a total enrollment for 2004-2005 of more than 5000 students.

Canisius College is a private, independent Roman Catholic college. It is governed by an independent self-perpetuating Board of Trustees under a charter granted by the Board of Trustees of the University of the State of New York.

Accreditation

Canisius College received its authority to confer bachelor's degrees in 1883 when it was incorporated by the Regents of the University of the State of New York. In 1894, the college offered its first course in the graduate program leading to the degree of master of arts.

Canisius College is an accredited member of the Middle States Association of Colleges and Schools and its programs are registered with the Regents of the University of the State of New York. The undergraduate programs in Business Administration and the M.B.A. program are accredited by the Association to Advance Collegiate Schools of Business International. The Chemistry major is accredited by the American Chemical Society, and the Athletic Training major by the Commission on Accreditation of Allied Health Education Programs. The Graduate Program for Teachers of the Deaf is accredited by the Council for
Education of the Deaf. The programs of the School of Education and Human Services designed to prepare students for school-based careers are accredited by the National Council for Accreditation of Teacher Education.

The college is also a member of the National Association of Independent Colleges and Universities, the Commission on Independent Colleges and Universities of the State of New York, the Association of Catholic Colleges and Universities, the Association of Jesuit Colleges and Universities, the Association of Colleges and Universities of the State of New York, the Middle Atlantic Association of Colleges of Business Administration and the Western New York Consortium of Higher Education.

**Campus Ministry**
Campus Ministry at Canisius College seeks to empower students, faculty, administrators, staff and alumni spiritually as persons “for and with others,” in the spirit of Jesus and the Jesuit tradition. Campus Ministry is guided by the cornerstones of spirituality, community, simplicity of life and service and is committed to support the spirituality of people from all faith traditions.

Catholic Eucharistic liturgies are regularly scheduled in Christ the King Chapel. Special liturgies celebrate special occasions on campus and respond to special needs throughout the year. Retreat experiences are offered to students, faculty and staff to grow spiritually and get away for spiritual renewal.

Campus Ministry promotes opportunities to put faith into practice by service to others. “Canisius for Buffalo” serves people in need locally. During breaks and over the summer, numerous service trips allow students to be of service both in various locations in the United States and in places outside our country. Campus Ministry promotes ethical values on campus and challenges the campus to address issues of social justice in our society. Students are invited to serve in various roles of leadership in all of our activities.

The members of the Campus Ministry team are available to the college community for pastoral counseling to help explore the human and spiritual dimensions of their lives and for help with all sorts of personal and communal issues.

**The Faculty**
The college seeks faculty members known to be creative and energetic teachers who also seek to engage their students in their research and scholarship. Modest class size is the norm, and interaction among students and faculty is easy and natural.

Canisius’ full time faculty members have degrees from over 100 different universities, including 24 degrees from Europe, nine from Asia/Pacific, 16 from Canada, and two from South America. Each of the 210 full-time faculty members has been chosen for his or her academic competence, ability to teach, interest in research and moral integrity. The college’s present faculty is a group of highly trained, dedicated individuals who take a personal interest in the students under their charge. Over 96% have earned doctoral or terminal degrees in their fields.

Over 250 individuals from the fields of law, health care, education, business, government, science, technology and the arts contribute as part time faculty members to the mission of Canisius College.

**The Library**
The quality of any educational institution is determined largely by the proficiency of its faculty and the excellence of the information resources available to support the curriculum.

The Andrew L. Bouwhuis Library is housed in a beautiful and inviting modern facility. The building has ample study facilities, a computer laboratory, a curriculum materials center, group work rooms, and audio-visual areas. Canisius students have at their disposal an excellent library collection of over 400,000 volumes of books, periodicals, microforms, and other materials. The Library subscribes to over 24,000 full text electronic periodicals as well as to hundreds of paper journal subscription. Electronic resources can also be accessed from computer labs and residence halls through the campus network and from off-campus via the World Wide Web. The catalog and various other operations are fully automated. The Library has a substantial complement of computer equipment to access these resources, including over 50 laptop computers with wireless network access that may be used by students within the building.

The college’s resources are supplemented by membership in the Western New York Library Resources Council, a cooperative system that links area libraries through daily delivery service. This system makes available to Canisius students the resources of all major libraries in Western New York. Further, the Library’s participation in OCLC (On-line Computer Library Center), an international library consortium, enables it to borrow materials from libraries throughout the United States via direct computer link.

The Library is open every day of the week for study and research, and is open nights until midnight from Sunday through Thursday. Assistance and guidance in the use of the Library and its facilities are provided by a highly competent staff of professional librarians and technical assistants.

The Rev. J. Clayton Murray, S.J. Archives, located in Bouwhuis Library, houses information related to the history of Canisius College. Visitors and researchers are welcome.
Computer Facilities
Instructional computing facilities include over 340 personal computers, as well as scanners and printers. Computers in student labs have access to word processing, spreadsheet, database, presentation, web development, statistical analysis and electronic mail software. There are several Internet Plazas located around campus where students may check their electronic mail or access the World Wide Web. All computers are connected to the World Wide Web and have access to extensive online research databases provided by the Andrew L. Bouwhuis Library. Laptops for loan and wireless networking are available for use in the Bouwhuis Library.

Canisius College has an extensive web site at www.canisius.edu that includes web-based electronic mail, course materials, course discussion boards and course registration. Student user accounts and electronic mail addresses are created for all students who agree to the Canisius College acceptable use policy.

Residence halls are wired for cable TV (including several Canisius-oriented channels), the campus telephone system including voicemail and Internet access.

Classrooms have been recently renovated and all contain some level of technology. Most classrooms provide video and computer projection for the instructor. There are eight computer classrooms containing one computer per student. Wireless networking is available throughout much of the campus.

Several departments, including Digital Media Arts and Computer Science, maintain a substantial complement of computing equipment specific to their needs.

Student Retention
Retention from freshman to sophomore years has been as follows for the last three years:
- Class of 2005 – 82.2%
- Class of 2006 – 83.2%
- Class of 2007 – 84.2%

Freshmen are defined as those who registered prior to their initial matriculation. Sophomores are those still registered following the drop/add period one year later.

Nondiscrimination
Canisius College does not discriminate on the basis of age, race, religion or creed, color, sex, national or ethnic origin, sexual orientation, marital status, veteran's status, genetic predisposition or carrier status, or disability in administration of its educational policies, employment practices, admissions policies, scholarship and loan programs and athletic and other school administered programs.

Canisius admits students of any age, race, religion or creed, color, sex, national or ethnic origin, sexual orientation, marital status, or veteran's status to all rights, privileges, programs and activities generally accorded or made available to students at the college.

It continues to be the policy of Canisius College not to discriminate on the basis of handicap. No person is denied employment, admission or access solely because of any physical, mental, or medical impairment which is unrelated to the ability to engage in the activities involved in the education requirements or occupation for which application has been made.
Participation at all levels of the college's operation is an important part of the student experience at Canisius. Student involvement is a valuable part of each individual's learning process and to the college as a whole, enabling the institution to draw upon the creativity, innovation and leadership of its students in its efforts to serve them better.

Students discover that education takes place both inside and outside of the classroom. In keeping with the Jesuit ideal of educating the whole person, students learn and develop a complete sense of self through participation in such experiences as life in the residence halls, co-curricular activities, organizational membership and leadership, social involvement in the community and membership on the various college committees. Through such involvement in the entire life of the college community, a student's years at Canisius will be a time of intellectual growth, advancement in self knowledge and an improved knowledge of others.

Division of Student Affairs
The vice president for student affairs and the dean of students, with the aid of staff and various committees, determine all student affairs policies and procedures for the college, subject to the approval of the president.

Assistance to students is provided by the following offices:
- Athletics - Intercollegiate
- Athletics - Intramural Athletics
- Campus Programming and Leadership Development
- Counseling Center
- Disability Support Services
- International Student Programs
- Multicultural Programs
- Public Safety
- Residence Life
- Student Affairs/Community Relations
- Student Center
- Student Health Center

Athletics
Canisius College conducts an extensive athletics program for both men and women, including varsity sports (NCAA Division I), clubs and intramural opportunities.

Varsity Sports: Men–baseball, basketball, cross country, golf, ice hockey, lacrosse, soccer, swimming and diving; women–basketball, cross country, lacrosse, soccer, softball, swimming and diving, synchronized swimming and volleyball.

Athletic Clubs: Men–rugby, volleyball; co-ed: bowling, cheerleading, skiing, scuba and women's crew.

Intramural Opportunities: Men – 5 on 5 and 3 on 3 basketball, flag football; women – 5 on 5 and 3 on 3 basketball, indoor soccer; co-ed: aerobics, racquetball, volleyball, floor hockey, 5 on 5 basketball, 3 on 3 basketball, outdoor soccer, indoor soccer, broom ball, 3 on 3 soccer, water polo, home run derby and softball.

Student Health Center
The Student Health Center strives to provide quality health care to all Canisius students. As an urgent care center, the Health Center treats minor episodic conditions common to college students. The staff views each student encounter as an opportunity to care for and educate the whole student. Students are motivated to take responsibility for their health, identifying how lifestyle choices today can impact current and future health and to be knowledgeable consumers of health care.

By creating an atmosphere that is marked by openness, warmth, respect and integrity, students feel welcome, comfortable and safe when seeking health care on campus. Nurses staff the Health Center walk-in clinic, Monday through Friday, and physicians are available on campus by appointment. All visits to the Health Center are confidential.

The Health Center refers students to local medical specialists and to local hospitals for services not rendered in the Health Center. Medical emergencies on campus are handled by Public Safety. The Public Safety staff is trained in first aid and CPR. Students needing health care on the evenings and weekends are referred to Public Safety for transportation to a local hospital or urgent care center.

Full time undergraduates are required to have a complete physical examination by their health care provider before starting classes.

All students, undergraduate and graduate, registered for six or more credits are required by New York State Public Health Laws to submit proof of immunizations to the Health Center before classes begin.

New York State Public Health Law 2165 requires that all students born on or after 1957 submit proof of immunity to measles, mumps and rubella. This requirement is strictly enforced.

For more information about the Student Health Center, physical examination and immunization requirements please visit our website at www.canisius.edu/student-health.

Health and Accident Insurance
Canisius College strongly recommends that all students have health insurance coverage. An unexpected illness or sudden injury can result in financial burden if a student must pay for medical services out of pocket. This burden can impact a student’s ability to complete their studies at Canisius.

Students should carry their health insurance card with them on campus and also submit a copy of the card to the Health
Center. Students should know how their plan works and what must be done when health care is needed at school. Students should contact their health plan member services for this information prior to arrival on campus.

Canisius College does offer all students, registered for six or more credits, a sickness and accident plan that is designed specifically for college students. Enrollment periods for the plan occur in September and January. For information about the plan including cost, eligibility, benefits and exact enrollment dates, visit the Health Center web site at www.canisius.edu/student health.

All full time undergraduates are covered under an accident plan for accidental injury or illness that occurs either on or off campus. For information about this plan, contact the Health Center. A description of the accident coverage is also available at the web address listed above.

Counseling Center
As an integral service within the Division of Student Affairs, the Counseling Center is committed to developing the personal and academic potential of Canisius College students by providing professional counseling services and outreach education designed to support the emotional health of our students. Counseling services are available to all registered students from a staff of professional counselors who work with students in addressing issues that interfere with their academic success and personal growth. Students are assured confidentiality, unless it is apparent that the student may do harm to him/herself, or others. Information disclosed does not become part of any official record and is protected by the ethical and legal standards of the American Counseling Association (ACA).

In addition to individual counseling, support groups are formed as needed. The Counseling Center staff is also available to conduct educational programs and workshops. Consultation services and referrals to community resources are also available through the Counseling Center.

Located in Frisch Hall 001, the Counseling Center is open Monday, Tuesday, Thursday, Friday, 8:00 a.m. - 4:30 p.m., and Wednesday 8:00 a.m. - 8:00 p.m. For emergency assistance after business hours, a crisis counselor is available by contacting Public Safety at 888-2330.

Please visit our website at www.canisius.edu/counseling.

Public Safety
The Department of Public Safety, located in the basement of the Bosch Residence Hall, is open 24 hours a day, providing around the clock protection and services to the campus community. The department was established to protect the educational environment of Canisius College, keeping the environment free from the threat of physical harm, property damage and disruptive activity. Departmental objectives include: aiding in the enforcement of federal, state and local laws; preventing crime; regulating non-criminal conduct and preserving the peace.

Uniformed Public Safety Officers are on duty 24 hours a day, seven days a week, 365 days a year. Their primary responsibilities include: patrolling the campus area on foot, on bicycles and in vehicles; security services; emergency response; and requests for assistance involving members of the campus community.

Public Safety also provides a variety of support services that are tailored to meet the needs of the campus community. These services include; conducting crime prevention and personal safety programs, operating the campus shuttle system, providing Canisius ID cards, and providing assistance to campus motorists experiencing minor mechanical problems.

For a comprehensive summary of the activities and services provided by Public Safety, visit the Department of Public Safety Web site at www.canisius.edu/public_safety.

Crime Statistics
Canisius College complies with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act by making available information on campus security and personal safety. This information includes crime prevention, public safety, law-enforcement authority, crime reporting polices, disciplinary procedures and other important matters about security on campus. Also available are statistics for the three previous calendar years on reported crimes that occurred on campus, in certain off-campus buildings or property owned or controlled by Canisius College and on public property within or immediately adjacent to and accessible from the campus. The Canisius College Advisory Committee on Campus Safety will provide upon request all campus crime statistics as reported to the United States Department of Education. This information is available on-line at www.ope.ed.gov/security. A PDF of the full report is available on the Canisius College Web site at http://www.canisius.edu/public_safety/stats.asp. A printed copy may be obtained by calling Dr. Cary Anderson, dean of students at 716-888-2130.

Residence Life
The Office of Residence Life promotes the personal growth of resident students as they adjust to college life; interact with others in the residence halls, and with the college community. Canisius College believes that the experience of living on campus contributes to the development of a well-rounded individual. The Office of Residence Life creates an environment where students can live, learn and develop leadership skills, and become men and women for others.

Canisius College has been building and renovating residence halls since 1992. Canisius offers some of the best state-of-the-art residence halls currently in the country.

In the fall of 2005, Canisius College will open a new residence hall which will feature suites; half with private bathrooms and half with private living rooms. This building will also feature a kitchen, laundry and a meeting area on every floor.
There are several housing options available to resident students. Bosch and Frisch Halls, both renovated during 1996-1997, are the traditional residence halls for freshman students. They include double rooms, suites, triples, triple-suites and social lounges with kitchens on each floor. The college also offers theme-housing like the Science floor in Frisch Hall and the International Learning and Living Community in Eastwood Hall.

Campion Hall which was renovated in 2002-2003, is the Intercultural Living Center and the George M. Martin Hall, renovated in 1999, offers students in the College Honors Program a unique opportunity to live in an educational learning environment.

Campion Hall features singles, doubles and triple rooms. A large kitchen and computer labs are also available to students. Campion Hall strives to build a community that celebrates, explores and recognizes cultural traditions and heritages from intellectual, interpersonal and individual perspectives.

The George M. Martin Hall features single and double rooms with community bathrooms, a kitchen and two social lounges. This hall’s environment stresses academic excellence, social interaction, and fosters community values and trust among its residents.

The Delavan Townhouses, built in 2002, feature one-, two-, three-, four-, and five-person apartments with single-person bedrooms. These apartments also have living rooms, kitchens and private bathrooms.

The Village Townhouses, Main-Humboldt, and Main-Delavan Apartments feature four- and five-person apartments. These apartments are equipped with double bedrooms, kitchens and private bathrooms.

Griffin Hall, renovated in 1992, features two- and three-person apartments. These apartments include living rooms, private bathrooms and full-size kitchens. The college also owns several houses adjacent to the campus.

Desmond Hall features singles and doubles, private bathrooms, large community kitchen and lounge area. This building is located 7/10 of a mile from the main campus and houses graduate students only.

Residence hall staff members live on floors and in apartment buildings to respond to the needs of students. Our staff, which is comprised of graduate and undergraduate students, is trained to handle the personal, disciplinary, academic and social concerns of the students.

Living well in the Canisius College community gives students rights, privileges and responsibilities. The Office of Residence Life is committed to helping students explore new experiences. For further information on cost, services, virtual tours and much more, visit the Residence Life web page at www.canisius.edu/reslife/.

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**Campus Programming and Leadership Development**

The Office of Campus Programming and Leadership Development (OCP&LD) encourages and promotes involvement and enhances student learning through co-curricular programming and leadership development opportunities.

To help achieve this mission, Campus Programming & Leadership Development allows students the opportunity to get involved on campus. Students may choose from a variety of clubs and organizations including the Undergraduate Student Association (USA) which is comprised of the entire student body and is represented by an elected group, the Student Senate. The purpose of the Senate is to assist, finance and integrate all student organizations and to represent the views of the student body to the college administration. The Commuter Student Association (CSA) represents all of the commuter students and the Residence Hall Association (RHA) is the student governing body for the resident students at Canisius. Additionally, there are over 90 student clubs and organizations at Canisius. These organizations provide students with an opportunity to explore an academic subject informally yet deeply, gain familiarity with the arts or with differing cultures, provide service to the college or to the community, develop a wide range of leadership skills, or simply socialize with other students. For example, the Senate Programming Board sponsors the annual fall Semi-Formal, the end of the year Spring Fest and the Java Jams (bi-weekly Thursday night coffee house). At the Java Jams free entertainment, food and hot coffee are provided in a coffee-house style atmosphere. This is a great way to relax and socialize with friends.

Various honor societies give recognition to student excellence in numerous areas, and the student-run media on campus, such as the college newspaper (The Griffin), the campus radio station (WCCG) and the college’s yearbook (AZUWUR), provide students with opportunities to explore communications media while keeping the college community informed and entertained. Furthermore, Greek social organizations provide students with the opportunity to interact with each other in a unique context. A variety of club sports enhance the recreational opportunities for students. Many special events such as concerts, plays and lectures are also scheduled.

The Office of Campus Programming and Leadership Development sponsors a number of programs throughout the year including: Canisius Cinema, Best of Buffalo and the Friday and Saturday Nights in the Palisano. The Canisius Cinema series enables the college to show current movies that are no longer playing at the movie theaters, but have not been released on VHS or DVD. Through the Best of Buffalo program, students are provided with the opportunity to attend many of the cultural, sporting, historical and entertainment offerings that Buffalo and Western New York provide. Examples of these programs include a Buffalo Bills game, a Broadway musical at Shea’s Center for the Performing Arts and a Ghost Walks Tour of the Theatre District. Our late
night programming includes the Friday and Saturday Nights in the Palisano series. “Grocery BINGO, Sumo and Sushi and Texas Hold’em Tournament” are just a few examples of the fun, creative programs offered to students. Free food and beverages are provided, as well as prizes at some of the events.

Furthermore, the office sponsors an array of leadership development opportunities and programs that will enhance your college experience such as Leadership Workshops, Leadership on the Go Series, and the High School Leadership Workshop. Additionally, a “leadership library” of books and other resources is available to students. For more information, come visit our office or our website at www.canisius.edu/campus leader to see what’s happening around Canisius.

Office of Disability Support Services
The Office of Disability Support Services is committed to creating equal access for all Canisius students with disabilities. It is our goal to help meet the needs of individuals registered and documented through the office, whether the disability is permanent or temporary. The mission of DSS is to see that no student is excluded from or discriminated against while participating in any Canisius program, function or activity, while at the same time maintaining the highest level of academic integrity. DSS advocates responsibility for an accessible and holistic learning environment through the removal of informational, physical and attitudinal barriers.

The DSS staff is devoted to providing the college community with support and services necessary to achieve excellence in academic, social and personal growth. DSS promotes self-advocacy and self-determination for students with disabilities, while reinforcing personal responsibility. The aim of DSS is that, with proper accommodations, all qualified individuals with disabilities at Canisius will have the opportunity to achieve success.

Students who wish to utilize the services available through DSS must self-identify, register with the Office of Disability Support Services and complete the DSS intake form. Students must also provide current documentation by a licensed or certified official that states the disability in order to obtain special accommodations. For more information, please feel free to contact the office at (716) 888-3748.

Career Center
Choosing a career is one of the most important decisions made by an individual. Obtaining a college education and planning one’s future occupation are activities closely bound to each other. For this reason, Canisius College provides a number of programs and services through the Career Center that are designed to help students define their career goals and make the preparation needed to ensure a successful transition from student life to the world of work. Available services include:

Career Counseling: Individual sessions with a career counselor are always available. Students make appointments to discuss career interests, assess skills and interests, determine the best matches between academic major and post-graduate career, review resumes and develop career strategies.

Career Assessment: All students will have access to self-assessment tools, including the Strong Interest Inventory guidance program, to assist them in determining the areas of their occupational interests.

Career Library: An extensive collection of career research resources and self-help career-related materials are available to students and alumni.

Workshops: The Career Center collaborates with Residence Life, Student Activities and other divisions of the college to provide workshops on career-related topics such as interview skills, resume writing and job search strategies.

Graduate/Professional Schools Fair: This annual fall semester event provides access to representatives of graduate and professional programs locally, regionally and nationwide from a variety of academic disciplines.

Web-Based Job Posting Bulletin Board: An on-line, web based job bulletin board that lists full- and part-time positions, internships and seasonal and volunteer opportunities.

On-Campus Recruiting, Job Fairs, Career Days: Regularly scheduled events provide access to employers from public, private and non-profit organizations.

Students discover that career services are best used early during one’s college years. Freshmen and sophomores will find the Career Center an excellent source of information on occupations and majors. Juniors refine their career objectives, identify specific career paths and seek internships, as well as volunteer and job opportunities that will aide in their job search. Seniors can take advantage of a variety of programs, such as on-campus recruiting and networking events, that are intended to assist them in obtaining their first career position.

International Students
Canisius College welcomes international students and appreciates the cultural diversity they offer our student body. Currently our international students are from approximately 31 countries including areas as diverse as Europe, the Middle East, Africa, Asia, South America and Australia. The Office of International Student Programs advises international students and assists them with their adjustment to Canisius College and American culture by organizing educational and social programs. To further encourage cultural understanding within the Canisius community, the International Student Programs Office also arranges host families for our international students and organizes an annual International Fest, a week-long celebration of cultural diversity on campus. Other services for international students include an extensive orientation for new students, assistance with immigration regulations and special tutorial help in English. The Global
Horizons Association, a student organization for American and international students, plans additional activities to promote cultural awareness on campus.

All international students studying on a F1 or J1 Visa are required by the college to purchase a health insurance plan offered by Canisius College. This plan is designed and written specifically for the health care needs of international students studying in the United States. Information about the required health insurance plan is available in the International Student Programs Office.

Office of Multicultural Programs
A genuine, pluralistically diverse campus fosters freedom of expression, tolerance, equality, mutual respect and understanding of other people. Such a community recognizes the interdependence of diverse groups and the integrity of each individual, where all individuals feel a sense of being participants in the college’s mission and activities.

The Office of Multicultural Programs assists the college in enhancing services for African American, Asian-American, Latino/a-American and Native American (ALANA) students while educating the entire student population regarding cultural diversity. The office assists students regarding racial issues, self-concept interests and participatory involvement within the frame-work of the college. Although services provided are primarily co-curricular, the office also serves as a referral and support unit regarding academic and other collegiate matters.

The director of the Office of Multicultural Programs meets informally with all students and invites members of the student body to special multicultural events on campus and in the Buffalo community. This frequent interaction helps students to feel comfortable when articulating their concerns on such challenging topics as racism, cross-cultural communication and relationships, as well as discussing academic, financial and personal concerns from a multicultural perspective.

Men and women of ability and achievement are welcome in all divisions of Canisius College. Admissibility as students is determined based on aptitude, achievement and character.

Secondary School Preparation
The secondary school program of studies should include a minimum of 16 units of credit in academic subjects. The college considers academic subjects as those stressing intellectual development, including English, social studies, science, mathematics and foreign language.

Applications for Freshman Admission
Candidates for freshman admission to the college should complete the admissions application either in paper form or on-line. A complete application requires a $40 application fee, an official high school transcript, a guidance counselor recommendation, official test scores from the SAT-I or ACT examinations and any supporting documentation the student chooses to submit. Letters of recommendation and an essay are encouraged. The application fee is waived for on-line application submissions.

Rolling Admission and Priority Notification
Canisius adheres to rolling admissions allowing students to apply at any time until the class is full. Canisius offers a priority consideration deadline of November 15. Students applying by this date will be notified of an admissions decision and scholarship award by December 15.

Condition of Admittance
Students who are accepted for freshman admission are admitted with the expectation that they will successfully complete their senior year of high school and graduate prior to enrollment at Canisius. Failure to graduate from high school or to maintain the academic standard for which admission has been granted are sufficient grounds to rescind an offer of admission to Canisius.

Early Admission Policy
Canisius College will accept approved candidates for early admission from high schools that officially approve of this policy and whose curricula are satisfactory. Early admission candidates are defined as students who have completed all or a majority of their high school graduation requirements in less than four years. Students applying for early admission must adhere to all freshmen admission policies.

Additional conditions for early admission are as follows:

1. Students must be recommended by their high school principal or counselor with the understanding that students will only be recommended if they have demonstrated excellence in academic achievement and motivation.
2. Students must have completed three years of high school curriculum prior to enrollment at Canisius. Exceptions to this rule are very unusual.
3. Ordinarily, students must have reached their sixteenth birthday or will reach their sixteenth birthday by the end of the first semester of freshman year.

Candidate’s Reply Date Agreement – May 1
Canisius College adheres to the College Entrance Examination Board’s Candidates’ Reply Date Agreement (CRDA). According to this policy students may submit their tuition (and housing) deposit upon receipt of their letter of acceptance or any time prior to and including May 1. The deposit is non-refundable after May 1.
Advanced Standing and Transfer Credit Policies and Processes for Incoming Freshmen

Under the conditions indicated below, students may obtain credit for college-level courses delivered in high school through advanced placement exams, International Baccalaureate scores, CLEP exams, and submission of transcripts from accredited two- and four-year institutions. Requests for acceptance of such credits should be directed to the appropriate associate dean, who will consult with the Core Curriculum Committee or the major program or department as needed. A maximum of 30 credit hours will be granted to first-time freshmen enrolling directly from high school.

College Courses Delivered in High School Settings

Students who achieve a grade of C or above will earn at least elective credit for classes offered in their high school by accredited colleges. Core curriculum credit for such courses is subject to approval by the Core Curriculum Committee, and credit in the major is subject to approval of course equivalency by the major department or program. An official college transcript must be received by Canisius College before credit can be awarded. All such requests should be directed to the appropriate associate dean, who will consult with the Core Curriculum Committee or the major program or department as needed.

Advanced Placement Courses

Students achieving a 3 or higher on the College Entrance Examination Board Advanced Placement Test will normally earn at least elective credit toward a degree at Canisius College. (Canisius College reserves the right to deny credit for a 3 in a particular Advanced Placement Test if subsequent student performance in relevant courses at Canisius College has provided evidence that a 3 in that Test does not demonstrate college level competence.) Core curriculum credit for such courses is subject to approval by the Core Curriculum Committee, and credit in the major is subject to approval of course equivalency by the major department or program. Official results of the exam must be sent from the College Board to Canisius College before credit can be awarded. All such requests should be directed to the appropriate associate dean, who will consult with the Core Curriculum Committee or the major program or department as needed.

International Students

International candidates for undergraduate admission should submit a completed application and certified transcripts from all secondary schools or colleges attended. Transcripts not in English should be accompanied by a certified English translation. International students from countries whose original language is not English must also submit official test results from either the paper or electronic version of the Test of English as a Foreign Language (TOEFL) exam. All documents should be submitted to the Office of Undergraduate Admissions.

To be eligible for a student visa, students must also submit evidence of sufficient funding to cover educational expenses.

Applications for Transfer Admission

Students who have graduated from high school and have completed at least three credit hours of post-secondary, college-level work will be considered for transfer admission to Canisius College. Candidates for transfer admission should submit an application for transfer admission and submit official transcripts for all colleges attended. Additionally, a Transfer Recommendation Form completed by the dean of students or other appropriate official from the most recent college attended is required. Candidates who have completed fewer than 24 credit hours of college level work at the time of application must also submit an official high school transcript.

Adult Applicants

Applicants for freshmen or transfer admission who have had a break in their academic work must submit a statement of activity for the period representing the break in their education.

Advanced Standing and Transfer Credit Policies for Transfer Students

A transfer credit evaluation will be completed for transfer students who are accepted for admission to Canisius. A maximum of 60 credit hours may be transferred from two-year colleges and at least 60 more credit hours must be earned at Canisius in order to be awarded the bachelor’s degree. Students transferring from four-year institutions must complete at least 30 credit hours at Canisius, including at least 18 in their major, in order to earn the bachelor's degree.

Transfer credit from accredited two-and four-year institutions of higher education is granted when the course objectives for the completed work are substantially the same as the course objectives at Canisius College. Transfer credit is awarded only for courses with a minimum grade of C or better. If an associate degree was earned by the student all courses with minimum grade of D or better will be considered for advanced standing.

For teacher certification candidates, a grade of C or better is required to transfer courses listed as major courses in teacher education, special education, adolescence education, physical education, health education and athletic training programs.

Once transcripts have been submitted to and reviewed by the Office of Student Records, the student must meet with the appropriate associate dean to review the transfer credit and register for classes.

Canisius College has a variety of articulation and dual degree agreements with community and junior colleges throughout New York State. These agreements recognize specific programs and majors at the two-year institutions that allow students the most comprehensive transfer of courses and credits. Students at these institutions should consult with their academic counseling center for specific information on articulated programs and majors.
Disqualified Students
Academic policy at Canisius College prohibits acceptance of a student who has been academically disqualified from another college or university until one academic year after date of dismissal. Exceptions to this policy may be made after review of the applicant’s academic credentials by the appropriate academic dean of the College of Arts and Sciences, the Wehle School of Business, or the School of Education and Human Services.

Non-Matriculated Students
Non-matriculated students, i.e., individuals who are not working towards a degree at Canisius, may be approved for a maximum of three courses per semester. Courses requiring prerequisites may be taken only when supporting documents are presented at the time of application insuring that the prerequisite courses have been successfully completed. Non-matriculated students will receive the normal college credit for all work successfully completed.

Visiting Students
Students from other colleges or universities who wish to attend Canisius for the purpose of transferring earned credits to their home institutions must apply for entrance through the Office of Undergraduate Admissions.

An application for visitation must be accompanied by a letter of permission from the appropriate academic dean at the home institution. The letter, in substance, should state that the applicant has permission to take courses at Canisius for the purpose of transfer back to the home institution.

Auditors
Students wishing to audit courses at Canisius College must secure the approval of the Office of Student Records and Registration. No credit is granted for an audited course. Responsibility for examination, assignments and attendance is determined by the faculty member teaching the course. No student will be permitted to change from audit to credit after the first session of the class.

Auditing fees are listed in the Tuition section of the catalog.

Class Attendance
Students are expected to attend all regularly scheduled classes, labs and other course-related activities. However, on some occasions students may need to be absent. Instructors are privileged to establish reasonable absence regulations, which should be clearly stated at the first class meeting. The suggested norm for a semester is twice the number of classes per week. This means that a student would be permitted four absences in a class that meets every Tuesday and Thursday, and six absences in a class that meets every Monday, Wednesday and Friday. When unavoidable absences occur, the student should explain the circumstances as soon as possible to the instructor, who will judge the validity of the excuse.

The instructor is expected to determine when the number of absences has reached the level where any additional absences would prevent the student from attaining the objectives of the course. This judgment should be communicated to the student with the warning that any further absences will result in an automatic dismissal from the course and a grade of “FX.”

Making Changes
Change in registration: Once registration has been completed, the student must follow the program of studies shown on the official registration form. No change or deletion of courses will be approved after the first seven full days of classes.

Change in curriculum: A student desiring to change from one field of concentration to another must present a petition to be approved by the appropriate dean. Juniors and seniors must also receive the approval of the chair of the department in which they wish to enroll. The correct form is available in the Student Records office. The student must then meet in full the academic requirements of the new curriculum and must make up all deficiencies in the core curriculum.

A student who interrupts matriculation for more than one complete calendar year is bound by the regulations in force at the time of readmission.

Each student is responsible for the preparation of a program of studies in conformity with the requirements and course prerequisites in force in the student’s division of instruction at the time of matriculation.

Change in name, address and phone: It is the responsibility of each individual student to notify the college of any change of name, address and/or phone number. Change-of-address forms are available in the Student Records office.

Withdrawal
Withdrawal from a course: A student wishing to withdraw from a course must submit a course withdrawal form to the Student Records office after it has been signed by the instructor and the departmental or freshman advisor, as well as by a financial aid counselor if the student receives financial aid and by a counselor from COPE if the student is involved in programs through that office. The instructor indicates either approval or disapproval of the student’s request to withdraw. An instructor might disapprove withdrawal if there is evidence of academic dishonesty. In cases where the instructor disapproves of the withdrawal, permission to withdraw is determined by the associate dean of the student’s school in consultation with the instructor of the course. Requests for withdrawal are not granted automati-
The Canisius College community is dedicated to academic excellence and is, therefore, committed to establishing and maintaining an atmosphere of trust. All members of the community agree and pledge to exercise complete integrity in their academic work. Academic integrity is the foundation of true intellectual growth; it demonstrates respect for oneself and for others.

The students, faculty and administration of Canisius College understand their responsibility for maintaining academic integrity to be both individual and collective. Fulfilling this responsibility requires us to uphold high standards in our own conduct and to exercise fairness towards each other. All instances of academic dishonesty are a breach of community standards. Students, administrators and staff, course instructors and their representatives are expected to report violations of the Code of Academic Integrity.

All members of the Canisius College community are committed to administering the Code of Academic Integrity in a manner consistent with our mission: to teach responsibility, to foster learning and to care for the intellectual and ethical development of the whole person.

Violations of the Code of Academic Integrity shall be dealt with in a manner which is just to all parties and contributes to the learning process. Sanctions shall be shaped by the belief that infractions are not simply occasions for punishment, but opportunities for learning and for improving the ethical standards of the individual and the community.

All Canisius College students are automatically bound by the Code of Academic Integrity. As a reminder and reinforcement of the ideals this code embodies, course instructors are asked to place a pledge on scheduled tests and assignments, as well as in the course syllabus. Students, in turn, are asked to carefully consider and sign the pledge, which reads:

“As a member of the Canisius College Community I understand and will uphold the standards for academic behavior as stated in the Code of Academic Integrity.”

II. Standards for Academic Behavior
A. Prescriptions
Academic integrity requires a commitment to five fundamental values: honesty, trust, fairness, respect and responsibility.

1. Honesty.
As an academic community of integrity, Canisius College requires intellectual and personal honesty in learning, teaching, research and service. Honesty is the prerequisite for full realization of trust, fairness, respect and responsibility. The policies of Canisius College discourage dishonesty in the forms of cheating, lying, fraud, theft and other behaviors that jeopardize the rights and welfare of the college community and diminish the worth of its academic degrees. All members of the community subscribe to the principle of observing basic honesty in their work, words, ideas and actions.

2. Trust.
As an academic community of integrity, Canisius College seeks to foster a climate of mutual trust, encourage the free exchange of ideas and enable all members of the community to reach their highest potential. Trust creates an environment in which collaboration is valued and information and ideas can be shared without fear of one’s work being stolen. It also allows us to
believe in the social value of our scholarship and the degrees that are achieved here.

3. Fairness.
As an academic community of integrity, Canisius College seeks to set clear standards, practices and procedures, and expects fairness in the interactions of all members of the community.

4. Respect.
As an academic community of integrity, Canisius College recognizes the participatory nature of the learning process and honors and respects a wide range of opinions and ideas. If they are to be rewarding, teaching and learning demand both active engagement and mutual respect among all members of the community. Respect is shown by attending class, being on time, paying attention, listening to other points of view, valuing the aspirations and goals of others and recognizing them as individuals, being prepared and contributing to discussions, meeting academic deadlines and performing to the best of your ability.

5. Responsibility.
As an academic community of integrity, Canisius College upholds personal accountability and depends upon action in the face of wrongdoing. Every member of the academic community is responsible for upholding the integrity of the scholarship and research carried out here. Such shared responsibility leads to personal investments in upholding our academic integrity standards. Being responsible means taking action against wrongdoing, discouraging and seeking to prevent misconduct by others. One primary responsibility is to discourage violations of the Code of Academic Integrity by others.

B. Proscriptions
All students of the college are expected to understand the meaning of the Code of Academic Integrity. Ignorance of the code is not a valid reason for committing an act of academic dishonesty. Students should realize that their actions may affect other students. In general, students may not obstruct or interfere with other students’ academic work or otherwise undertake an activity with the purpose of creating or obtaining an unfair academic advantage over other students. Each of the following behaviors violates all of the principles of honesty, trust, fairness, respect and responsibility explained above and is thus prohibited.

1. Plagiarism.
The MLA Handbook for Writers of Research Papers defines plagiarism as using “another person’s ideas or expressions in your writing without acknowledging the source....” Of course, common sense as well as ethics should determine what you document. For example, you rarely need to give sources for familiar proverbs (“You can’t judge a book by its cover”), well-known quotations (“We shall overcome”), or common knowledge (“George Washington was the first president of the United States”). But you must indicate the source of any appropriated material that readers might otherwise mistake for your own” (5th Edition, pp. 30, 33). Plagiarism may range from isolated formulas, sentences, or paragraphs to entire articles copied from books, periodicals, web sites, speeches, or the writings of other students.Honesty requires that any work or materials taken from another source for either written or oral use must be acknowledged. Any student who fails to give credit for ideas or materials obtained from another source is guilty of plagiarism. Plagiarism, in any of its forms, and whether intentional or unintentional, violates standards of academic integrity. Examples of plagiarism include, but are not limited to:

• Direct quotation of any source material whether published or unpublished without giving proper credit through the use of quotation marks, footnotes and other customary means of identifying sources. This includes complete sentences or paragraphs, or an entire piece of written work.
• Paraphrasing another person’s ideas, opinions, or theories from books, articles, web sites, etc., without identifying and crediting sources.
• Borrowing facts, statistics, graphs, diagrams, photographs, or other illustrative or visual materials that are not clearly common knowledge without identifying and crediting sources.
• Copying another student’s essay test answers.
• Submitting papers written by another person or persons. This includes copying, or allowing another student to copy, a computer file that contains another student’s assignment and submitting it, in part or in its entirety, as one’s own.
• Working together on an assignment, sharing the computer files and programs involved, and then submitting individual copies of the assignment as one’s own individual work without course instructor approval.
• Buying or selling, or exchanging term papers, examinations, or other written assignments, or any part of them.
• Offering false, fabricated, or fictitious sources for papers, reports, or other assignments.

2. Cheating.
Cheating includes, but is not limited to: using unauthorized notes, study aids, or information on an examination, test, etc.; altering a graded work after it has been returned, then submitting the work for regrading; or allowing another person to do one’s work and submitting that work under one’s own name. Cheating also includes the possession, without authorization, of copies of tests, answer sheets, or other materials, however obtained, that could interfere with fair, accurate testing, as well as retaining, possessing, using or circulating previously given examination materials without authorization.

3. Duplicate Submission of the Same Work.
Submitting the same work for more than one course is a violation unless the professor(s) assigning the work gives consent in advance. This includes work first produced in connection with classes at either Canisius College or other institutions attended by the student.

4. Collusion.
Collusion includes cooperation that results in the work or ideas of others being presented as one’s own (e.g., rather than as a group effort). However, ordinary consultation of faculty, library staff, tutors or others is legitimate unless the instructor has imposed stricter limits for a particular assignment.

5. False Information and Lying.
This includes consciously furnishing false information to other students, faculty members and their representatives, advisors, administrators or representatives of the college offices with the intent to mislead. Instances would include but are not limited to misrepresenting activity outside of the classroom (reports on field work, internships, etc.) or improperly seeking special consideration or privilege (e.g., for postponement of an examination or assignment deadline, etc.).

This includes any attempt to forge or alter academic documentation (including transcripts, letters of recommendation, certificates of enrollment or good standing, registration forms, drop/add forms, withdrawal forms, and medical certifica-
tion of absence) or to falsify other writing in academic matters (e.g., any documentation provided to instructors) concerning oneself or others.

7. Theft, Abuse and Destruction of Academic Property. This comprises unauthorized removal, retention, mutilation or destruction of common property of the college that deprives others of equal access to these materials. Such property includes but is not limited to library materials, laboratory materials, computers and computer software, etc. This includes also sequestrating library materials for the use of an individual or group; a willful or repeated failure to respond to recall notices from the library; and the removal or attempt to remove library materials from the library without authorization. The theft, mutilation or destruction of another student’s academic work, including books, notes, computer programs, papers, reports, laboratory experiments, etc. also falls under this type of violation.

8. Unauthorized Use of Information Technologies. In the context of the completion of a course and/or assignments (contained within a course), the unauthorized use of computers or the college's computer network (e.g., the unauthorized use of software, access codes, computing accounts, electronic mail and files) or other electronic devices (calculators, personal digital assistants, pagers, etc.) is prohibited.

9. Aiding and Abetting Academic Dishonesty. This includes intentionally: (a) providing material, information, or other assistance to another person with knowledge that such aid could be used to commit any of the proscribed acts noted above; or (b) providing false information in connection with any inquiry regarding academic integrity.

III. Procedures for Adjudicating Violations of the Code of Academic Integrity

A course instructor who suspects academic dishonesty may ask the associate dean about the student's prior record in this area. Anyone other than the course instructor suspecting a violation is expected to inform the course instructor or proctor at the earliest possible opportunity, even while the suspected violation is being committed. In the absence of the course instructor, the associate dean will receive reports of violations and will replace the course instructor in the following procedures. “Associate dean” refers throughout to the associate dean of the school to which the course belongs.

A. Initial Procedure

The course instructor meets with the student to discuss the incident. The student will be informed of the course instructor’s suspicions. The student may respond to the allegations and may bring witnesses, if deemed pertinent by the instructor.

The instructor decides whether the student has violated the Code of Academic Integrity and, if necessary, assigns a sanction. This determination of responsibility shall be based upon the facts of the incident and whether it is more likely than not that the student is responsible for the alleged violation(s).

The student shall be provided written notification of the instructor's decision and sanction, normally within five business days. Possible sanctions include:

- Warning: a notice in writing to the student that the student has been found responsible for violating the Code of Academic Integrity;
- Grade Reduction or Course Failure;
- Discretionary Sanctions: work assignments, community service, participation or completion of college service or program, service to the college and/or other related discretionary assignments;
- Educational Program or Project: participation in or completion of a program or project specifically designed to help the student understand why the Academic Integrity violation was inappropriate.

If a sanction is imposed the course instructor is expected to file a “Notification of Academic Dishonesty” form with the appropriate associate dean. Forms are available in all associate dean offices and in other campus offices. The form, the sanction and supporting documentation become part of the academic misconduct file shared by the associate deans of Arts and Sciences, the School of Education and Human Services and the Wehle School of Business.

B. Appeal

The student may request, in writing, a review by the appropriate associate dean, of the course instructor's decision. The written request from the student must be submitted to the associate dean not more than five business days after the student is notified of the course instructor's decision. The associate dean shall review the decision and meet with the student to discuss the matter. If the student chooses, the college ombudsman shall be present during the appeal. The appropriate associate dean coordinates arrangements for the college ombudsman's presence.

If an appeal is granted, the associate dean may replace the sanction with another that may be more severe, less severe, or otherwise different. The associate dean may impose any sanctions found in Article IV, Section C of the Community Standards except grade change or course failure.

Normally, however, the associate dean may request that the course instructor reconsider the original decision and/or sanction. In very serious cases or when a pattern of academic dishonesty is documented, the associate dean may direct the case to a Hearing Panel. If the associate dean is the course instructor or has acted in the course instructor's place, the appeal shall be submitted to the dean of the school in which the course is offered.

C. Hearing Panel

When a case of academic dishonesty is very severe or a documented pattern of violations of the Code of Academic Integrity exists, the associate dean may refer the case to the dean of students so that a Hearing Panel from the Community Standards Board may be convened. Normally, the associate dean requests the formation of a Hearing Panel when the violation might merit one of the following sanctions: a notation on the official transcript, probation, suspension, expulsion, or degree revocation. However, the associate dean may choose to hear any case without convening a Hearing Panel and may then impose any sanctions found in Article IV, Section C of the Community Standards except grade reduction or course failure.

Hearing procedures for alleged violations of the Code of Academic Integrity shall operate according to the procedures outlined in Appendix C Hearing Procedures of the Community
Standards. However, appeals shall be directed to the vice president of academic affairs.

D. Failure to Appear
The judicial process outlined above is intended to provide the student an opportunity to respond to allegations of violations of the Code of Academic Integrity, thereby enabling the course instructor or associate dean to make an informed decision about responsibility and appropriate sanctions. However, if a student fails to respond to three communications (in the form of written notification, telephone, e-mail, or oral requests) attempting to schedule a meeting, or fails to attend a scheduled meeting, a decision based upon available information may be rendered in absentia.

E. Records
“Notification of Academic Dishonesty” forms and proceedings records shall be maintained confidentially in a central location until five years after the responsible student graduates or permanently separates from Canisius College. In cases where notation on the official transcript, suspension, or expulsion is imposed, the file shall be retained as part of the student’s permanent academic record.

The complete text of the Community Standards judicial policies, procedures, and sanctions can be found in the Canisius College Student Handbook.

 Portions of this policy were adapted with permission from the University of Scranton, Loyola College in Maryland, and Georgetown University.

Academic Forgiveness Policy
This policy is intended to assist former Canisius College students whose grade point average is below 2.0. It is to be used to assist students that have reapplied to the college and demonstrate personal growth and motivation to accomplish their educational goals. This policy will allow for up to thirty (30) credit hours of course work with grades of F or FX to be removed from the calculation of the grade point average.

A period of not less than five years must have passed prior to the student’s readmission to the college. The student must submit a petition for academic forgiveness with the application to the college. The appropriate associate dean will meet with the student, review the petition, and make a recommendation. No acceptance decision will be made without the recommendation of the associate dean, after the review of the petition.

The admissions office will then process the application and notify the student of the decision. Once the associate dean has made a recommendation, a memo will be sent to the Student Records office indicating that the student has been approved for academic forgiveness. The memo will list the courses that should be removed from the student’s academic record. Each course will have an “X” listed after the course number. This will indicate the course is part of the academic forgiveness policy. A notation will also appear on the transcript indicating the student was approved for academic forgiveness.

The student must maintain a minimum semester average of 2.50 and a minimum grade point average of 2.00. The student must meet with the department chair of the intended major. The department chair will review the academic record and make recommendations about what courses from five or more years ago will count toward completion of current major requirements. The student must take a minimum of ten (10) courses at Canisius College to be eligible for a degree. The student will be required to meet with the appropriate associate dean at least twice during the first semester. Progress reports will be required for students during their first semester after academic forgiveness is granted.

An agreement between the associate dean and the student will be completed in writing. The agreement will outline all the requirements for the student to be approved for academic forgiveness. This will also include but not be limited to the minimum semester and grade point average requirements, the required appointments for progress review, and course restrictions or limitations for the first semester. Failure of the student to meet the forgiveness agreement will result in automatic dismissal from the college.

Mathematics Placement and Developmental Mathematics Courses
Placement: The Department of Mathematics and Statistics, in conjunction with Academic Development, screens incoming freshmen for appropriate placement in mathematics. We use SAT, ACT and high school mathematics scores to determine the placement. The students placed in MAT 002 will be given opportunity to place out by taking a challenge test during summer orientation.

Developmental Mathematics Courses: Placement in MAT 002 indicates serious weaknesses in the student’s background. Since the admission requirements for Canisius mandate a minimum of three years of high school mathematics, the student must take and pass MAT 002 before signing up for ANY AS VII courses.

Grades
Grades inform students of the level of performance they have achieved in a course. Grades are means whereby students may come to know and appreciate their capacities and abilities. Instructors are responsible for specifying the performances required in their courses; students are responsible for meeting the requirements specified.

Grades earned by students at Canisius College reflect:
1. The extent to which the requirements specified in the course syllabus have been met.
2. The degree to which the requirements completed exhibit mastery of the subject or skills which are the object of the course.
3. Other criteria specified by the instructor at the beginning of the course, criteria such as, but not limited to, attendance at lectures or other course functions, projects voluntarily undertaken in excess of specified requirements, correct use of oral or written English and contribution to discussion or other course activities.
Grades earned by undergraduate students include the following:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Good performance.</td>
</tr>
<tr>
<td>B</td>
<td>Good performance.</td>
</tr>
<tr>
<td>B-</td>
<td>Adequate performance.</td>
</tr>
<tr>
<td>C+</td>
<td>Adequate performance.</td>
</tr>
<tr>
<td>C</td>
<td>Adequate performance.</td>
</tr>
<tr>
<td>C-</td>
<td>Adequate performance.</td>
</tr>
<tr>
<td>D</td>
<td>Poor, but passing, performance.</td>
</tr>
<tr>
<td>F</td>
<td>Failing performance.</td>
</tr>
<tr>
<td>FX</td>
<td>Failure due to excessive absences or unauthorized absence from the final examination.</td>
</tr>
<tr>
<td>P</td>
<td>Passing. The description of the Pass/Fail program is given later in this chapter.</td>
</tr>
</tbody>
</table>

Grades authorized by the deans include the following:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>Authorized Withdrawal from a course. The description of withdrawal procedures is in a preceding section of this chapter.</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. The description is in a later section of this chapter.</td>
</tr>
</tbody>
</table>

Final course grades cannot in normal circumstances be altered after they have been recorded by the registrar. The appropriate dean's permission is required if a final grade is altered. Final grades are available on the college's on-line services page at the conclusion of each semester by the registrar. If an official grade report is needed for any reason, contact the Student Records office to request a grade mailer.

Students who are dissatisfied with their grade in a course may repeat the course once (exceptions may be approved by the appropriate associate dean in consultation with the department chair). In such cases both grades will be entered in the student's record, but, for the purpose of computing cumulative G.P.A.'s, only the second grade will be used for the calculation.

Incomplete Grade: A student who, for serious and well-defined reasons, has failed to fulfill all requirements of a course or has failed to take the final exam may petition an instructor to request, from the appropriate associate dean, a grade of “I,” indicating “Incomplete Performance.”

Only the appropriate dean may grant an Incomplete grade. It will not be granted to a student whose only reason is excessive absence during the semester or failure to complete the work of the course before the close of the semester without an exceptionally good reason. Examples of such good reasons might be prolonged illness or hospitalization during the semester, serious illness at the time of the final examination, or other unusual circumstances.

An Incomplete grade, when granted, is merely temporary and will automatically be changed to an “FX” grade if a final grade is not submitted to the appropriate associate dean, who then forwards the grade change to the Student Records office within six weeks after the close of final examinations.

**Grade Grievance Procedure**

Occasions may arise when a student does not agree with the grade he/she has received in a course. When this happens, the question of whether the grade should be reconsidered is addressed in two stages.

**A. The initial stage in the grievance procedure is as follows:**

1. The student first contacts the course instructor to discuss the grade in question within four weeks of the start of the semester (regular academic session) immediately following that in which the grade was awarded. If the instructor agrees that the grade in question was inaccurate, a grade change is processed by the instructor.

2. If the student and the instructor cannot agree on the appropriateness of the grade in question, the student may petition the chair of the instructor's department, in writing, within ten working days after the meeting with the instructor.

   a. If a mutually agreeable decision is made through mediation conducted by the chair, the instructor will submit the agreed-upon grade and the process is completed. If there is no outcome that is mutually acceptable to the student and the instructor, the process may continue. If the instructor is also the chair, then Step 2 is omitted and the process goes to Step 3.

3. The student may appeal the decision to the appropriate dean's office within ten working days after the mediation process is complete. The dean shall collect written views and other pertinent material from the involved instructor, student and chair, as well as consult with any other individuals deemed necessary. The dean shall render the decision whether the grade should be reconsidered.

4. The decision of the dean to reconsider or not to reconsider the grade in question is final. If the decision is to reconsider the grade, the procedure outlined in Part B below is followed. If the decision is not to reconsider the grade, the original grade cannot be changed. Cases which are referred to the procedure in Part B can be withdrawn only with the consent of the student, instructor, department chair, and dean – and after first informing all parties involved.

**B. The final stage in the grievance procedure is as follows:**

1. If the dean feels that the reconsideration of the grade in question is appropriate, a panel of tenured faculty who have not been involved in the process described above is formed from the department in question. The panel must be formed within ten days of the dean's decision. If the department does not have a minimum of four members, it will be expanded to include all the tenured members of the departments within the division (Natural Science, Social Science, Humanities, or Business) of which the department in question is a member.

2. A three-member panel will be selected as follows. The dean, faculty member and student involved will each select one member of the panel from the designated pool.
3. The panel will review all appropriate material and make a determination about the grade change. This review must be completed within thirty days of the formation of the panel. The panel has the authority to assign a grade for the course in question. That grade may be the same grade as assigned by the instructor or a higher or a lower grade, according to the panel's judgment. The student and the instructor will be informed of the panel's decision and, when applicable, the authorized grade change will be submitted to the registrar.

4. The decision of the panel may be appealed by the original instructor or the student to the vice president for academic affairs only in the following extraordinary circumstances:
   a. The grade grievance procedure was not followed.
   b. Prejudice was manifested against either the student or the instructor.
   c. New, relevant information was introduced.

   The appeal must be brought within thirty days of the panel's decision. The burden of proof for the appeal rests with the individual bringing the appeal.

5. If the vice president for academic affairs believes that the decision of the panel should be reviewed, a three-member appeal panel will be appointed from the pool of tenured faculty as described in Step B-1. The vice president, the faculty member and the student involved will each select one member. No member of the original panel may serve on the appeal panel. The appeal panel will follow the procedure in Step B-3, including completion of its task within thirty days of the formation of the panel. The decision of the appeal panel is final.

Pass-Fail Program

Seniors and juniors are eligible to elect one course each semester for which they will receive a grade of either "Pass" or "Fail." The purpose of this plan is to enable upperclassmen to take more difficult courses than they would normally take for fear of lowering their quality-point average.

The program is as follows:

1. Juniors and seniors who have completed at least 30 hours at Canisius may elect one course each semester, not to exceed a total of four courses in their college careers, for which they will receive a recorded grade on their transcript of either "Pass" or "Fail."

2. This course must be outside the student's major field and may not serve to satisfy any of the requirements in the core curriculum.

3. Within one week after the semester begins, the student must file a request for "Pass-Fail" grading. Application forms may be found in the office of the appropriate dean. If the dean grants permission for a course to be taken pass-fail, grades will still be assigned for all work done during the course and on the final examination. A final grade will be sent to the Registrar. If this grade is “D” or above, the registrar will record a pass for the course on the student's transcript; otherwise, he will record a failure.

4. Having received permission to take a course on the "Pass-Fail" option, a student may request in the last week of classes to withdraw from the option and receive a conventional letter grade. A form for this request is available in the office of the appropriate dean. A student who withdraws from the "Pass-Fail" option receives the letter grade assigned by the instructor.

5. A student attaining a grade of Pass will receive full credit for this course.

6. If a student elects to receive pass or fail in a course, this course will not be counted in the quality-point average. The student must carry at least four courses to be eligible for this program. Part-time students, however, are eligible with fewer than four courses.

7. This plan is entirely optional. A student may or may not elect to take advantage of it.

Courses at Other Colleges

Students matriculating at Canisius should plan to complete all their coursework at the college. The rationale for this policy rests in the mission and philosophy of the college and in its concern for the essential unity and integrity of all aspects of the curriculum: the college core, major requirements and free electives. Permission to take courses at other colleges during the regular and summer sessions is granted by the appropriate associate dean, who will consider all aspects of the student's request, including the quality and level of the proposed course and its role in the student's program. Courses intended to fulfill major requirements must also be approved by department chairs. Permission to take courses at other colleges must be requested on the appropriate form and in advance of taking the course.

Generally, the following guidelines apply:

1. Students are ordinarily limited to one course at another institution for every ten courses taken at Canisius.

2. Junior- and senior-level core curriculum and major course requirements are not transferred from community colleges.

3. Courses taken at a four-year college/university will be accepted only if they are offered at a comparable level at Canisius (i.e., freshman-sophomore level/junior-senior level).

4. Students who live outside the greater Buffalo area may receive more lenient consideration in taking a summer course at another college. However, the dean may recommend a cassette course as a preferred option if he/she considers it more appropriate than the off-campus course.

5. No more than one of the two area study requirements within a specific area can be taken at another college.

Study Abroad

The college manages undergraduate study abroad partnerships with:

- Belgium — University of Antwerp
- Canada — Laval University
- France — Catholic University of Lille
- Germany — University of Dortmund
- Ireland — National University of Ireland, Galway
- Japan — Sophia University
- Mexico — Universidad Iberoamericana, Universidad Michoacana de San Nicholas de Hidalgo
- Spain — University of Oviedo
- Sweden — University of Uppsala
- United Kingdom — University of North London

Students interested in study abroad should begin planning early in their college experience so that preliminary coursework and language study can be completed in advance. Students should confer with the Study Abroad office located in the International Student Programs office (Frisch Lower Level 005, extension 2784) and with their academic advisor.
to discuss the options.

In keeping with the college’s policy on “Courses at Other Colleges,” students who wish to study at the universities listed above must study through the Canisius programs.

Students who wish to study at other foreign universities or in other countries than those listed should confer with the International Student Programs office.

Credit by Examinations
Students who are applying for admission or who are presently in attendance may obtain credit for previously completed examinations sponsored by the College Level Examination Program (CLEP) of the College Entrance Examination Board (CEEB) or by the New York State College Proficiency Examination Program (CPE). The minimum acceptable grades for these exams are “Pass” for exams graded Pass/Fail, “C” for exams with letter grades, and 50 on exams graded on a standard score scale of 20 to 80. Credit is not awarded for the CLEP general examinations. Credit in appropriate subject area exams is granted by the Student Records Office after the student has matriculated at the college. However, not all CPE and CLEP exams are acceptable as transfer credits. In addition, credits to be used in fulfilling departmental major requirements must first be approved in writing by the department chair. Students should plan to complete all their coursework at the college. Permission for matriculating students to take CPE or CLEP exams to fulfill degree requirements must be requested from the appropriate associate dean and will be granted only under extraordinary circumstances.

Regents College Examination
Students who are applying for admission to Canisius College or who are presently in attendance may be eligible, under unusual circumstances, to receive college credit for previous experience through the Regents College Examination Program. The minimum acceptable score on the examinations is 50.

A student’s Q.P.A. is obtained by dividing the total number of quality points by the total number of credit hours carried.

Academic Standing
Academic standing is determined by the cumulative G.P.A. from the beginning of the student’s studies at Canisius. The following terms are used to describe a student’s academic standing:

1. Academic probation: When a student’s G.P.A. falls beneath the level indicated on the chart on the next page, he/she is placed on academic probation—a serious warning that the student’s academic record at the college is unsatisfactory. It is generally not advisable for students on academic probation to take part in extracurricular activities. Varsity athletes, in addition, are governed by NCAA and regional conference regulations. Probation for two successive semesters will result in automatic academic disqualification from the college.

2. Academic disqualification: Academic disqualification results from any one of the following:
   a. Falling below the G.P.A. indicated on the chart below.
   b. Failing three courses in a single semester.
   c. Being placed on academic probation for two successive semesters. Disqualified students may not enroll in any division of the college and must wait at least six months before applying for readmission.

3. Good academic standing: This is a term used to determine a student’s eligibility for financial aid. A student who is on academic probation is considered to be in good academic standing. Further details may be found in the chapter on Financial Aid.

The G.P.A. levels for academic probation and academic disqualification are given as follows:

Cumulative Q.P.A. based on 0-30 credit hours:
ACADEMIC PROBATION: 1.50-1.99
ACADEMIC DISQUALIFICATION: Below 1.50

Cumulative Q.P.A. based on 31 or more credit hours:
ACADEMIC PROBATION: 1.75-1.99
ACADEMIC DISQUALIFICATION: Below 1.75

To be eligible for graduation, a student must have earned an overall cumulative average of 2.00.

Separation from the College
Each student’s continued registration at the college, the awarding of academic credits and the granting of any certificate or degree are entirely subject to the disciplinary authority of the college. The college reserves the right, therefore, to enforce the regulations concerning satisfactory academic performance and, in consequence, to cancel a student’s registration, to refuse academic credits, or to deny a certificate or
degree. Separation from the college may also be imposed as a penalty for any conduct which conflicts with the ideals of the college or damages its reputation and that of its students.

**Policy on Student Records**

The Family Educational Rights and Privacy Act of 1974, as amended (FERPA), is the federal law governing individuals’ access to student records. The guiding principle of FERPA is that education records are private and that students have the right to limit their disclosure to third parties.

FERPA grants students the right to inspect and review their education records, the right to request to amend their education records and the right to limit disclosure of some personally identifiable information known as directory information.

For purposes of FERPA, “education records” are all records which contain information directly related to a student and maintained by Canisius College. Records that are not “education records” include but are not limited to sole possession, law enforcement, employment, medical and counseling, and post-attendance records. A “student” is defined as one who has attended or is attending Canisius College and regarding whom Canisius College maintains education records.

Normally, education records will not be released – nor access given – to third parties without written consent of the student unless the party meets one of the following:

- To school officials who have a legitimate educational interest in the records.
- To federal, state, and local officials involving an audit or evaluation of compliance with educational programs.
- To anyone who is providing financial aid to the student (“financial aid” does not include any payments made by parents).
- To organizations conducting certain studies for or on behalf of the college.
- To accrediting organizations to carry out their functions.
- To comply with a judicial order or a lawfully issued subpoena.
- To parents of a dependent student.
- To appropriate parties in a health or safety emergency.
- To schools in which a student seeks or intends to enroll.
- To an alleged victim of a crime of violence of the results of a disciplinary hearing regarding the alleged perpetrator of that crime with respect to that crime.
- To parents/legal guardian when their children (under age 21) are found to have violated the Canisius College alcohol or drug policy.
- To military recruiters who request “Student Recruiting Information” for recruiting purpose only.
- To the Internal Revenue Service (IRS) for purposes of complying with the Taxpayer Relief Act of 1997.
- To the Bureau of Citizenship and Immigration Services (BCIS) for purposes of the Student and Exchange Visitor Program.
- To authorized representatives of the Department of Veterans Affairs for students receiving educational assistance from the agency.

It should be noted that FERPA permits the disclosure of education records to the parents of a dependent student. The college, however, considers its students to be adult decision-makers; as such, students have the right and responsibility to share information about their grades and degree pursuit with their parents and/or guardians. This means that the staff of the college normally will not give out information about grades or degree pursuit and will instead suggest that parents or guardians have conversations directly with students about these matters. The college’s policy provides a greater degree of privacy for dependent students than FERPA would require. If the student or the parent wish to have this information released to the parents, the student must sign an Authorization to Disclose Grades form with the Student Records office, Bagen 106.

There are exceptions to the foregoing Canisius policy. When a student who is the dependent of a parent or guardian is failing a course at midterm and fails to make or keep a progress appointment with the designated academic advisor, when a student has conditions placed on number and kind of courses for which s/he can register because of probationary grade point average, and/or when a student has conditions placed on number and kind of course for which s/he can register because the student has been academically dismissed but reinstated through appeal, the college will notify the parent or guardian of such events.

A notification of releases made to third parties shall be kept in the student’s record (unless forbidden by a judicial order or subpoena). The third party shall be informed that no release of personally identifiable data is authorized without the written consent of the student.

The college has established the following procedures enabling students to have access to their records:

1. The student may inspect and review his or her record by filling out a request form at the office where the record of interest is maintained. Students may not inspect and review the following:
   - Financial information submitted by parents.
   - Confidential letters and recommendations placed in their files prior to January 1, 1975.
   - Confidential letters and statements of recommendation placed in records after January 1, 1975, to which the student has waived his or her right to inspect and review.
   - Education records containing information about more than one student; however, in such cases, students will be given access to the part of the record which pertains only to the inquiring student.
2. Access is to be granted promptly and no later than 30 days from the date of the request.
3. The student may obtain copies of documents to which he or she is entitled. The college may charge for these copies.
4. The student may request and receive interpretation of his
or her record from the person (or designee) responsible for maintaining the record.

Students have the right to challenge the content of their education records if they consider the information contained therein to be inaccurate, misleading or inappropriate. The process includes and opportunity for amendment of the records or insertion of written explanations by the student into such records. The procedures for challenging records can be found in the Office of Student Affairs, Old Main 102.

Unlike education records, directory information shall be released freely unless the student files the appropriate form requesting that certain information may not be released. This form is available at the Student Records Office, Bagen 106. Directory information includes but is not limited to name, address, Email address, phone number, photograph, date and place of birth, major field of study, dates of attendance, grade level, enrollment status, participation in officially recognized activities and sports, weight and height of members of athletic teams, degrees, honors and awards, received and most recent education agency or institution attended.

This policy does not preclude the destruction of any record the college does not consider germane. Persons in charge of records shall ensure that only pertinent items are retained in student files. The forms for “Request for Confidential Status of Directory Information” and “Authorization to Disclose Grades” shall be removed from a student’s educational records upon graduation unless the student makes a specific request that these forms remain.

**Recognition of Academic Excellence**

Two categories of recognition are awarded at the end of each semester. The first recognizes full-time students and the second recognizes both full-time and part-time students. In addition, students in either category who achieve a 4.00 will receive the designation “with Special Distinction.” The two categories are:

1. **Dean’s List.** Awarded to students who have attained a grade point average of at least 3.50 for the semester and have completed at least four courses of three credits or equivalent.
2. **Merit List.** Awarded to students who have attained a grade point average of at least 3.25 for the semester and have completed two courses of three credit hours or equivalent.

Students who receive an “Incomplete” grade will eligible for the Dean’s or Merit lists once the work is completed and a passing grade submitted. The “Incomplete” grade must be changed within six weeks from the end of final examinations deadline.

**Graduation**

Degrees are awarded three times a year. September 15th for students completing their degree requirements during the summer, February 1st for students completing their requirements during the fall semester and at the annual commencement program on the date designated in the college academic calendar.

To qualify for the degree of bachelor of arts or bachelor of science, a candidate must complete a minimum of 120 credit hours, the core curriculum requirements, and all requirements of the major. To qualify for the degree of associate of arts, a candidate must complete satisfactorily 20 three- or four-credit hour courses and a minimum of 60 credit hours.

Satisfactory completion of requirements means that the candidate has maintained the quality-point average indicated in the section on Academic Standing and has completed all general and departmental requirements as outlined in this catalog.

In extraordinary circumstances a student may petition the appropriate dean to be allowed to participate in graduation ceremonies even though the student will not have completed all degree requirements by the date of commencement. Before graduation, the degree candidate must settle all accounts with the Office of Student Accounts.

A student who completes the degree requirements in August or December and wishes to obtain his/her diploma before the next commencement should submit a diploma request form to the Student Records office. Students should contact that office regarding the deadline dates for such requests.

Each student’s name should be submitted to the Student Records office exactly as the student wishes it to appear on all official documents of the college.

It is the student’s responsibility to keep this file accurate. A fee of $30.00 will be assessed to reprint a diploma if the name on the new diploma is to differ from that on the official record of the college.

**Graduation Honors:**

Only students who have completed the last 60 credit hours of academic work at Canisius College are eligible for graduating with honors. The Canisius College cumulative G.P.A. determines graduation with honors according to the following scale:

- Degree is awarded *summa cum laude* to those whose average is 3.80 or higher.
- Degree is awarded *magna cum laude* to those whose average is 3.65 or higher.
- Degree is awarded *cum laude* to those whose average is 3.45 or higher.

**All-College Awards and Prizes**

- **The Father Francis A. O’Malley, S.J., Memorial Award** is awarded to a member of the senior class for outstanding scholastic achievement throughout the four-year course of study at Canisius College.
- **The James M. Demske, S.J., Scholastic Achievement Award** is bestowed upon a senior who has transferred to Canisius College and has completed at least 60 credit hours here. This student will have achieved an exceptionally high cumulative average while a student here.
- **The Alumni Association Distinguished Senior Award** is awarded to a senior who has distinguished him/herself through leadership roles and service to the college.
- **The Campus Ministry Award** is given to a graduating senior who has contributed to the Canisius College community through
participation in the events, programs, and activities of Campus Ministry.

The Kristen M. Brady Award for Excellence in Senior Honors Thesis is awarded to the student who writes the most outstanding thesis in the All-College Honors Program.

All-College Honors Program Leadership Award recognizes the student who has exercised the strongest leadership in carrying out the co-curricular and extra-curricular activities for the All-College Honors Program and who has taken leadership roles in honors classes.

The Dr. Martin Luther King, Jr. Awards are given to faculty members, students, or administrators whose lives and work best represent the ideals of Dr. King.

The Dr. Martin Luther King, Jr. Annual Poetry Awards are given to the three top entries most closely related to the ideals of Dr. King. The competition is open to all students.

The I. Joan Lorch Award for Women's Studies is awarded to a student who has made a significant contribution to promote women's issues on the Canisius College campus through such activities as writing a newspaper series, performing committee work, or representing women's issues on a governing body.

The Hearst Earning Excellence Award is given annually to a graduating senior in Art History who has maintained outstanding academic achievement and has demonstrated leadership in their major.

The Edith DeLuca Memorial Award is given to the graduating senior in Communication Studies or Digital Media Arts who has demonstrated excellence in academic performance and leadership.

The American Advertising Federation, Canisius College Chapter, Academic Excellence Award is given to the graduating senior member with the highest G.P.A. in the major.

The Canisius College Communication Studies Department Academic Excellence in Digital Media Arts Award is given to the graduating Digital Media Arts senior with the highest G.P.A. in the major.

The Public Relations Student Society of America, Canisius College Chapter, Academic Excellence Award is given to the graduating senior member with the highest G.P.A. in the major.

The Computer Science Award for Highest G.P.A. in Computer Science is given annually to a graduating senior.

The Computer Science Award for Highest Overall Cumulative G.P.A. is given annually to a graduating senior.

The Charles A. Brady Award for Excellence in English is given to the graduating senior with the highest G.P.A. in the major.

The English Courses and Literary Extra-Curricular Involvement Award is given to the graduating senior with the highest G.P.A. in the major.

The American Advertising Federation, Canisius College Chapter, Academic Excellence Award is given to the graduating senior member with the highest G.P.A. in the major.

The Canisius College Communication Studies Department Academic Excellence Award in Communication Studies is given to the graduating Communication Studies senior with the highest G.P.A. in the major.

The Canisius College Communication Studies Department Academic Excellence Award in Digital Media Arts is given to the graduating Digital Media Arts senior with the highest G.P.A. in the major.

The Public Relations Student Society of America, Canisius College Chapter, Academic Excellence Award is given to the graduating senior member with the highest G.P.A. in the major.

The American Advertising Federation, Canisius College Chapter, Academic Excellence Award is given to the graduating senior member with the highest G.P.A. in the major.

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The Canisius College Communication Studies Department Academic Excellence Award in Communication Studies is given to the graduating Communication Studies senior with the highest G.P.A. in the major.

The Canisius College Communication Studies Department Academic Excellence Award in Digital Media Arts is given to the graduating Digital Media Arts senior with the highest G.P.A. in the major.

The Public Relations Student Society of America, Canisius College Chapter, Academic Excellence Award is given to the graduating senior member with the highest G.P.A. in the major.

The American Advertising Federation, Canisius College Chapter, Academic Excellence Award is given to the graduating senior member with the highest G.P.A. in the major.

The Canisius College Communication Studies Department Academic Excellence Award in Communication Studies is given to the graduating Communication Studies senior with the highest G.P.A. in the major.
HISTORY DEPARTMENT
The Professor William M. Harrigan Award for Excellence in History was inaugurated in 1971 to commemorate the late Dr. William M. Harrigan, chair of the History Department from 1960 to 1968. To promote excellence in historical scholarship, the award is presented to the senior who best exemplifies the standards of scholarship, interest in history, and Christian values which Dr. Harrigan upheld.

The Professor Edwin L. Neville Graduate Study Award in History is given to a senior History major or Secondary Education/Social Studies major who will pursue an advanced degree in History or social studies, preferably in Asian History.

The Rev. Nicholas J. Sullivan, S.J. Award is given for excellence in historical writing.

INTERNATIONAL RELATIONS PROGRAM
The International Relations Academic Excellence Award is given to the senior with the highest G.P.A. among International Relations majors.

The International Relations Award for Global Understanding and Involvement is presented annually to the senior International Relations major demonstrating academic excellence and furthering international understanding.

MATHEMATICS & STATISTICS DEPARTMENT
The Dr. Robert Tidd Award for Distinction in Mathematics is given to a senior upon recommendation by the Department of Mathematics and Statistics.

The Dr. William M. Huebsch Award in Mathematics is given to a senior who combines excellent performance in mathematics with great promise in the teaching of mathematics. The award is named in honor of Dr. Huebsch, alumnus of the Class of 1943, who was a former chair of the Mathematics department.

MILITARY SCIENCE PROGRAM
The General George C. Marshall Award is given annually by the George C. Marshall Foundation to the outstanding senior ROTC cadet in Buffalo.

The Outstanding Military Graduate Award is given to a distinguished Canisius College cadet who demonstrates exceptional leadership potential, academic achievement and participation in ROTC activities.

MODERN LANGUAGES DEPARTMENT
The Raymond L. Girard Award for Distinction in French is bestowed annually on the graduating senior who best exemplifies the qualities of academic excellence and service in the field of French language, literature and culture.

The James J. McGoldrick Award for Excellence in German is bestowed annually on the graduating senior who best exemplifies the qualities of academic excellence and service in the field of German language, literature and culture.

The City of Oviedo Award for Distinction in Spanish is bestowed annually on the graduating senior who best exemplifies the qualities of academic excellence and service in the field of Spanish language, literature and culture.

PHILOSOPHY DEPARTMENT
The J. Clayton Murray Award in Philosophy is a designation awarded to the outstanding student in philosophy.

The St. Thomas Aquinas Award in Philosophy is given, at the discretion of the Department of Philosophy, to a student who has demonstrated exceptional achievement in satisfying the college's curriculum requirements in philosophy.

PHYSICS DEPARTMENT
The Valerian A. Ruskiewicz Memorial Prizes for Distinction in Physics is awarded annually to the member of the senior class who has the highest class standing throughout his/her course in physics.

The Woodrow Wilson Award is given to the Political Science major who combines academic excellence with a demonstrated commitment to the community.

The Pi Sigma Alpha Award is given to the student who best exemplifies the goals and spirit of the pursuit of knowledge in political science.

The Albert R. Mugel Award is presented annually to a senior intending to pursue a career in law and whose achievements, individual character and dedication to the welfare of the community best exemplify the career and ideals of Albert R. Mugel. Mr. Mugel was a member of the college's Board of Trustees and worked tirelessly to enhance the Pre-Law Center and enhance its position in Western New York.

PSYCHOLOGY DEPARTMENT
The Donald L. Tollefson Annual Psychology Award is bestowed annually for outstanding scholastic and professional achievement by a senior in psychology.

RELIGIOUS STUDIES DEPARTMENT
The James P. McDermott Award in Religion & Life is given to the senior who manifests Dr. Jim McDermott's love of learning and his application of religious values in his daily life.

The Cyril O. Schommer S.J. Memorial Prize in Religious Studies is awarded to the senior whose written work demonstrates theological insights and mastery of one of the religious studies disciplines.

SOCIOLOGY/ANTHROPOLOGY/CRIMINAL JUSTICE DEPARTMENT
The Canisius College Anthropology Award is given to a graduating senior with the highest overall cumulative G.P.A. in the major.

The Canisius College Sociology Award is given to a graduating senior with the highest overall cumulative G.P.A. in the major.

The Canisius College Criminal Justice Award is given to a graduating senior with the highest overall cumulative G.P.A. in the major.

School of Education and Human Services

Departmental/Program Awards

DEPARTMENT OF PHYSICAL EDUCATION, HEALTH AND SPORT STUDIES
The Rev. Edward F. Maloney, S.J. Physical Education Award is given to the graduating senior each year who best displays academic achievement, contributions to college life, participation in the department, including sponsored activities, and demonstration of professional qualities.

SPORT ADMINISTRATION PROGRAM
The Paul E. Bieron Sport Management Award is given to an undergraduate student enrolled in sports management as a concentration. The student will have had overall high academic achievement, participated as a student intern in the sports industry and done significant scholarly work throughout the curriculum.

DEPARTMENT OF SPORTS MEDICINE, HEALTH & HUMAN PERFORMANCE
John T. Gabbe, MD, Award for Excellence in Athletic Training is presented to the graduating senior who has demonstrated outstanding skills in all aspects of the Athletic Training program.

The Health and Human Performance Award is made on the basis of excellence in academic performance.

TEACHER EDUCATION DEPARTMENT
The William F. Kean Award of Excellence in Education is given to the graduating Education major with the highest academic average.

The Bruce D. Perry, MD, PhD, Award in Early Childhood Education is given to the outstanding early childhood major who exemplifies the qualities proposed by the National Association of the Education of Young Children.

The Donald J. Murphy Award in Childhood Education is bestowed upon a student who demonstrates excellence in three areas: academic performance, service to the college, and the promise of a successful career in childhood teaching.
The Thomas W. Fitzsimons Award in Adolescence Education is bestowed upon a student who demonstrates excellence in three areas: academic performance, service to the college, and the promise of a successful career in adolescence teaching.

The Council for Exceptional Children Award is given to the graduating senior who has maintained a high level of scholarship and demonstrates a commitment to teaching children with special needs.

The William D. Bennett Award is given to the graduating senior who demonstrates the hallmark of the late William Bennett’s life: commitment to academic excellence and teaching in multicultural settings.

The Thomas & Camille Caulfield Award is given to the graduate student counselor of the year.

Wehle School of Business Departmental/Program Awards

The Alpha Kappa Psi Scholarship Key is awarded annually to the graduate in the Richard J. Wehle School of Business who has attained the highest scholastic average over a three-year period. The award is made by the Delta Tau Chapter of Alpha Kappa Psi, the oldest national professional fraternity in commerce.

The Wall Street Journal Award of a desk plaque and a year’s subscription is given each year to a graduating senior who has demonstrated outstanding academic achievement in the Richard J. Wehle School of Business.

The J. Fred Schoellkopf IV Scholarship Award is given to an outstanding student in business studies.

Accounting Department

The Bradley J. Shelp, Jr. Memorial Award represents the most prestigious honor the Department of Accounting can bestow upon an accounting student. This award is given on those occasions when the Department of Accounting identifies a senior accounting student who excels in demonstrated attributes of excellence in scholarship and service to the college.

The New York State Society of Certified Public Accountants Awards are given annually, one to a graduating senior in accounting and one to a graduating student in the M.B.A. program in professional accounting. In each case the award is given to the student who has attained the highest scholastic average in accounting subjects and who is considered to be a desirable candidate for admission to the profession of public accounting.

The Canisius College Accounting Society Award is awarded annually to the outstanding senior accounting major.

The Financial Executives Institute Award is given to a graduating Marketing senior who displays, as assessed by the department, superlative academic skills and a commitment to professional success.

The Management Academic Excellence Award recipients are selected annually from the top ten percent of senior management majors based on overall G.P.A.

The Marketing Academic Excellence Award recipients are selected annually from the top ten percent of senior marketing majors based on overall G.P.A.

NOTE: The information in this section is valid only for the academic year May 14, 2005 through May 12, 2006. Information for the following academic year will be made available in the 2006-2007 Undergraduate Catalog Supplement. All tuition charges, student fees, room deposit for returning students, and room and board charges are assessed and collected by the Student Accounts Office, with the exception of the application and deposit fees for new students, which are assessed by the Office of Admissions. The Trustees of the college, when necessary, may amend the tuition charges, fees and room and board charges.

Application Fee

An application fee of $40.00 must accompany each formal application for admission to Canisius College. This fee is not refundable.

Tuition Deposits

All candidates for undergraduate day-school admission must make a pre-registration deposit of $200.00 on or before Candidate’s Reply Date of May 1. This deposit will be applied to the tuition bill of the first semester after the formal notice of acceptance. The entire deposit is forfeited if the student fails to enter the college or withdraws from the college before the completion of the semester.

Room Deposits

A $200.00 deposit is required of first time students occupying a room in one of the residence halls. A $300.00 deposit is required of returning students. The room deposit is non-refundable and is applied as a credit toward the spring semester room rental charge.

Payment of Tuition, Fees and Room and Board

The college bills the student, rather than his or her parents. Each semester a student is issued a bill for tuition, fees, and room and board by the Student Accounts Office. Financial responsibility begins with registration for a course. Failure to attend will not cancel a bill. Tuition, fees and room and board are due on the date printed on the bill. If a bill remains unpaid after the due date without payment arrangements being made, a $300.00 late charge will be added. All money is credited on the day received, NOT the day mailed.

A student must pay the bill in full or make arrangements with the Student Accounts Office to sign a Semester Payment Plan with an administration fee, determined by the tuition balance outstanding payable in installments throughout the semester. Failure to do so will result in the canceling of future registrations and a hold on the student’s transcripts and may also result in suspension from classes. Legal action may result to collect the monies due the college.
Policies

Withdrawal, Cancellation and Refund
Unofficial withdrawal does not cancel an account. No withdrawal credit will be given to any student who does not fill out the proper withdrawal forms provided by the appropriate academic dean. No withdrawals will be accepted or withdrawal credit given over the telephone. Withdrawal credit or refunds of tuition will be given to those students whose bills are paid, or have signed a Semester Payment Plan on or before the due date specified on the bill.

No refund of tuition or housing costs may be demanded as a matter of right when a student leaves the college or college owned housing without completing the semester in which enrolled. For a student to obtain a refund, the withdrawal must be authorized by the appropriate dean and/or the Director of Residence Life or designee by the filing of an official form, countersigned by the parent or guardian in the case of a freshman. If this is done, the student may request in writing a refund of tuition and/or housing costs only according to the following schedule:

- First week of classes (Drop and Add Week)............. 100%
- Second week of classes ........................................ 90%
- Third and fourth week of classes ............................ 50%
- Fifth week through eighth week of classes .............. 25%
- After eighth week of classes ................................. None

The refund policy is set by the federal government (Appendix A to Part 668 - Standards for Acceptable Refund Policies by Participating Institutions).

No refund of tuition will be granted to a full-time student who withdraws from a course but continues attendance in other courses at the college, with the exception of drop-and-add week. Such students will be deemed to retain full-time status. In circumstances necessitating a student’s actual change from full-time to part-time status, authorization may be granted only with the approval of the appropriate academic dean.

Refunds of tuition will be calculated from the date on which the appropriate academic dean approves. The refund will be sent to the student within thirty days. Full tuition and fees will be refunded in the event of cancellation of a student’s enrollment because of an error on the part of the college.

Any individual remaining enrolled may terminate the room and board agreement only under special circumstances approved by the Office of Residence Life. The same schedules noted above will be used to determine the final bill for housing costs, as specified in the Room and Board Contract.

Outstanding Financial Obligations
Any outstanding financial obligation which a student owes to the college can prevent the student from registering for courses or making schedule adjustments after registration. The following types of outstanding financial obligations can cause a financial hold to be placed on a student’s record and stop registration transactions:

- **A. Student Accounts Office** - any outstanding tuition, default on payment plans, late charges, write-offs or delinquent NDSL/Perkins loans and Peter Canisius loans;
- **B. Library** – any late fines or replacement fees for books not returned;
- **C. Residence Life** - residence hall damage fees;
- **D. Koessler Athletic Center** - fees for lost or damaged equipment.

In order to clear a financial hold, a student must pay the obligation due at the appropriate office or make suitable arrangements with that office. A student must clear ALL financial holds in order to register for classes, make schedule changes, receive or send transcripts or view their transcripts online.

Governmental Programs
Students who attend Canisius College under the provision of Public Laws 16, 346, 550, or 894 and those under the sponsorship and benefits of other government agencies are subject to regulations governing certified papers from the Veterans Administration or other government agencies. They must present these papers to the Student Records Office and the Student Accounts Office.

Deferred Tuition Payments
There are three deferred tuition payments options available:

1. For parents or students desiring to pay the full years education expenses in 10 monthly installments, a deferred payment program is available through the Student Accounts Office. Please contact that office for information regarding the Canisius Griffin Payment Plan.
2. Tuition payments may also be made with MasterCard, Visa Card or Discover Card.
3. Students desiring monthly installments in paying their tuition may sign a Semester Payment Plan with the college. If a student wishes to utilize the semester payment plan, he/she must do so by the due date on the bill. All semester payment plans are subject to an administration fee, determined by the tuition balance outstanding, and a penalty fee if the balance is not paid in full by the payment plan’s due date. Once the semester payment plan is signed and processed by the Student Accounts Office, the administration fee will be added to the tuition bill, and the remaining balance is split into three equal monthly installments. All semester payment plans are payable in full at the end of each semester.

Full-Time Students
A full-time undergraduate student is one who carries at least 12 semester hours of credit. However, a student taking 9 credit hours and one remedial course for non-credit or 6 credit hours and two remedial courses for non-credit will be considered full-time.
Part-Time Students
A part-time undergraduate student is one who carries less than 12 semester credit hours or less than 9 credit hours and a remedial course for non-credit.

Tuition and Fees: Undergraduate Division
FALL AND SPRING SEMESTERS 1
Effective May 14, 2005 through May 12, 2006

Per semester in all curricula:
Full time (12-18 credit hours)......................... $11,185.00
Part-time.................................................... $638.00/credit hour

Undergraduate courses in excess of semester hours allotted to each curriculum per semester hour........ $638.00
Audit, per semester hour.................................... $319.00
Audit, Alumni & Parents of Students, per course 2,3 $60.00
Audit, Senior Citizens, per semester (no course limit) 2,3 $50.00

Board, Per Semester: 1
Plan 1: 19 meals/week + $75 Flex
(includes 15 Bonus Meals)................................. $1855.00
Plan 2: 14 meals/week + $100 Flex
(includes 10 Bonus Meals)................................. 1735.00
Plan 3: 10 meals/week + $225 Flex
(includes 8 Bonus Meals)................................. 1550.00
Plan 4: 75 meals/semester + $500 Flex
(includes 5 Bonus Meals)................................. 1180.00
Plan 5: SUPER Flex Fund............................... 600.00
Plan 6: Flex Fund Only (minimum deposit)
(increase in $25 increments)............................. 50.00
Plan 7: Golden Choice (minimum deposit)........... 25.00

Room, Per Semester:
Room, single occupancy (Bosch+Frisch)............. $3938.00
Room, double occupancy (Bosch+Frisch)............. 2625.00
Room, triple occupancy (Bosch+Frisch)............. 2925.00
Suites (Bosch+Frisch)................................. 2190.00
Suites, triple occupancy (Bosch+Frisch)............. 2440.00
Off-campus houses.................................... 2195.00
Village, Main-Humboldt Apartments................. 3180.00
Main-Delavan Apartments.............................. 3180.00
Campion Hall (single occupancy)..................... 3425.00
Campion Hall (double occupancy).................... 2995.00
Griffin Hall.............................................. 3045.00
Desmond Hall (single occupancy)..................... 3317.00
Desmond Hall (double occupancy).................... 2460.00
Martin Hall (single occupancy)....................... 3740.00
Martin Hall (double occupancy)...................... 2925.00
Delavan Townhouses (4-5 occupancy)............... 3290.00
Delavan Townhouses (2-3 occupancy)............... 3740.00
Eastwood Hall (single occupancy).................... 3938.00
Eastwood Hall (double occupancy)................... 2625.00
Eastwood Hall (suite)................................ 2925.00

Semester Fees:
Student Government tax (provides partial support for various student activities)
Full-time students......................................... $80.00
Part-time students........................................... 18.00
College fee (including library, facilities use & ID card)
Full-time students.......................................... 271.00
Part-time student......................................... 13.00/credit hour
Technology fee
Full-time students......................................... 112.50
Part-time students........................................... 7.50/credit hour

Special Fees:
Non-Collegiate Learning Assessment Program (NLAP) LLL
499.......................................................... $200.00
Portfolio assessor fee.................................... 100.00
GRN 497 - Gerontology Practicum Assessment...... 40.00
EDU 122, PED 150 Portfolio (4 years)..................... 100.00

Laboratory, Computer Usage, or Cassette Usage Fees:
(per course)
Laboratory Usage: Athletic training
ATH 132, 231, 232, 331, 332, and 431.................. $20.00
ACC 211.................................................. 30.00
Biology...................................................... 40.00
Chemistry (including breakage allowance)........... 40.00
Education................................................... 20.00
Modern Language......................................... 25.00
Physics..................................................... 35.00
Psychology.................................................. 20.00
Cassette Usage (where required, cost of workbook will be extra).................. 225.00

Occasional Fees and Charges:
Application fee............................................ $40.00
Diploma reprint fee........................................ 30.00
Orientation fee 3 all new full-time undergraduate freshman students..................................... 125.00
Undergraduate transfer orientation fee.................. 55.00
Late payment fee.......................................... 300.00
ID card late fee or replacement.......................... 20.00
Returned check charges.................................. 25.00
Vehicle registration fee................................... varies
Transcript of records, each............................... NC
Thesis binding fee........................................... varies
Administration fee (Fashion Institute, Study Abroad, American Universities, etc.), per semester........... 250.00

1 Tuition waiver: see Financial Aid section.
2 On a space-available basis.
3 No fees, except for laboratory, are charged.
4 A detailed description of each plan may be obtained from the Student Accounts Office. First semester freshmen in Bosch, Frisch, or Eastwood must be on Plan 1. Freshmen in the second semester may choose either Plan 1, 2, or 3. Upperclassmen in Bosch, Frisch, or Eastwood must be on Plan 1, 2, 3 or 4. Residence students not in Bosch, Frisch, or Eastwood, and commuter students, may choose any of the six options. If Plan 1, 2, 3, 4 or 5 is purchased in the fall semester, it will automatically be re-billed in the spring semester, unless changed during the first two weeks of the spring semester.

5 There is an additional fee for first-time international, non-Canadian students: $125 for resident students; $75 for commuter students.
The cost of financing a college education is an important consideration for both students and parents. A Canisius College education is affordable and can be made financially possible through the many types of financial assistance administered by the Student Financial Aid Office. The staff of this office is available to help both students and parents plan for the financing of a Canisius education.

Students seeking federal financial assistance or institutional funds must complete the Free Application for Federal Student Aid (FAFSA), and a Canisius College Financial Aid Application.

The FAFSA may be obtained by incoming freshmen from their high school guidance counselors or on-line at www.fafsa.ed.gov. Transfer students and students in attendance at Canisius may obtain the FAFSA application at the Student Financial Aid Office, or on-line or use the FAFSA Renewal Form that is mailed directly to the student’s home address. The Canisius form can be obtained from the Financial Aid Office. Incoming students (freshmen and transfers) who mail their applications by February 15 will receive first preference in the evaluation procedure. Returning students should submit their applications by April 15 for first-preference consideration. These dates are recommendations. However, students who do not meet these dates are urged to apply at any time for second consideration.

### Estimated Student Budget for the Academic Year 2005-2006

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### General Eligibility Requirements

To be considered for student financial aid, a student must:

1. Study at least half-time at an educational institution approved by the federal government. It may be located in New York, in another state, or in a foreign country.
2. Be a U.S. citizen or permanent resident alien.
3. Be a resident of New York State for 12 months immediately preceding the first term for which the student is applying for aid (for New York State financial aid programs).
4. Be in good academic standing and making satisfactory academic progress.
5. Have no outstanding debt from a previous student loan default and must not owe a refund on any federal grant at any institution.
6. Demonstrate compliance with applicable Selective Service laws.
7. Demonstrate financial need or meet individual program or scholarship requirements.
8. Have never received a drug conviction OR have satisfied federal requirements to reinstate eligibility after a drug conviction.

### Criteria for Student Financial Aid Consideration

In order to be considered for student financial aid, students must matriculate. That is, they must have satisfied the entrance requirements and be following a prescribed program of study toward a degree. Non-matriculated students are students who are not pursuing a degree at Canisius College, but have met the college’s entrance requirements and have received the permission of the appropriate dean to take classes. Non-matriculated students are not eligible for financial aid.

Student Financial Aid awards are generally based on full-time attendance, which is at least 12 credit hours per academic semester. It is recommended that students contact the Financial Aid Office before reducing their academic load below 12 credit hours per semester in order to determine the effect on their financial aid. Students whose academic loads do fall below 12 hours per semester are required to contact the Financial Aid Office because it is very likely that the financial aid award will be affected. Certain aid programs are available to students who have enrolled part-time for at least six credit hours per semester. Students should contact the Financial Aid Office for further information.

Note: To receive financial aid, a student must remain “in Good Academic Standing.” For further information, the student should read the section entitled “Satisfactory Academic Standing.”

### New York State Aid for Part-Time Students

To be eligible for the New York State Aid for a part-time study program, a student must meet the following criteria:

1. Be a U.S. citizen or permanent resident alien;
2. Be a New York State resident;
3. Have a New York State net taxable income for the previous year of less than $50,550 if dependent or independent with dependents; $34,250 if independent;
4. Be matriculated;
5. Be registered for between three and eleven credit hours;
6. Be in Good Academic Standing as defined in this catalog;
7. Have remaining TAP eligibility; and
8. Not be in default on a Federal Family Education Loan.

Awards cannot exceed $1,000 per semester or tuition, whichever is less. This grant, in conjunction with other duplicative benefits, cannot exceed tuition. Institutional need-based aid, such as Canisius College Grants and Federal Supplemental Educational Opportunity Grants, are not considered duplicative benefits. Students must complete an APTS application in order to be considered. Applications are available in the Financial Aid Office.
Aid Office.

APTS Grants are awarded on an individual student basis, depending upon State allocation, other aid awarded, and tuition costs. Canisius College is reimbursed for these grants providing a student maintains a passing G.P.A. The minimum passing G.P.A. for Aid to Part-Time Study is a 1.0.

New York State Tuition Assistance Program
The Tuition Assistance Program (TAP) is a state-funded program for New York State residents. It may be used only at approved post-secondary institutions within New York State. Grants range from $500 to $5,000 a year, based on the family’s net taxable income for the previous year. There is no competition for this award. To be eligible, students must be full-time matriculated students who meet the standards stated below. Students may receive only eight semesters of TAP as undergraduates. However, students enrolled in approved five-year programs are eligible for 10 semesters of undergraduate TAP. At this time, only HEOP (Higher Education Opportunity Program) is such an approved program at Canisius College. The following table illustrates the amount of a TAP award at Canisius.

2005-2006 TAP

<table>
<thead>
<tr>
<th>New York State Net Taxable Income</th>
<th>First Time TAP Recipients in Fall 2000 or later</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - 7,000</td>
<td>5,000</td>
</tr>
<tr>
<td>8,000</td>
<td>4,930</td>
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<td>660</td>
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<tr>
<td>47,000</td>
<td>540</td>
</tr>
</tbody>
</table>

Federal Financial Aid Programs
The FAFSA and all requested income verification forms are the required forms for the following programs administered and/or awarded by Canisius College.

Federal Pell Grant: The Federal Pell Grant Program was legislated by the federal government through the 1972 Education Amendments and was amended by the Higher Education Amendments of 1986.

In order to be eligible for this grant, a student must be a U.S. citizen or a permanent resident alien. All full-time and part-time matriculating students should apply for this grant. Federal Pell grants range from $400 to $4,050 depending on the amount of funds appropriated by the federal government each year. Individual family circumstances and the cost of education at the college being attended are also taken into consideration. The Free Application for Federal Student Aid (FAFSA) is used to apply for the Federal Pell Grant Program. FAFSAs are available at all high schools, at the Student Financial Aid Office and on-line at www.fafsa.ed.gov.

Federal Perkins Loan Program: The Federal Perkins Loan Program is a federally funded program administered by Canisius College and awarded on the basis of financial need. It is available to both full-time and part-time matriculating students. The total undergraduate maximum is $15,000. The aggregate maximum for graduate students is $30,000, including all undergraduate loans through this program.

The annual percentage rate of the loan is 5%. Repayment will begin six months after the student ceases to be enrolled at least on a half-time basis. There is no interest charged while the student is enrolled in school at least half-time or during the six-month grace period.

The following is a typical loan payment schedule of quarterly Federal Perkins Loan payments:

<table>
<thead>
<tr>
<th>Amount Borrowed</th>
<th>Amount of Payment</th>
<th>Number of Payments</th>
</tr>
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<tbody>
<tr>
<td>$1,000</td>
<td>$90.26</td>
<td>12</td>
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<td>2,000</td>
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<td>3,000</td>
<td>97.66</td>
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<td>4,000</td>
<td>127.69</td>
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<tr>
<td>6,000</td>
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<tr>
<td>7,000</td>
<td>223.45</td>
<td>40</td>
</tr>
<tr>
<td>9,000</td>
<td>287.29</td>
<td>40</td>
</tr>
<tr>
<td>10,000</td>
<td>319.21</td>
<td>40</td>
</tr>
</tbody>
</table>

Federal and institutional regulations require students who have taken out a Federal Perkins Loan, a Federal Stafford Student Loan, or a Peter Canisius Student Loan to attend pre-loan and exit interviews before graduating or withdrawing from the college. Important information concerning repayment schedules and deferment and cancellation provisions will be discussed. It is to the student's advantage to attend. Students must contact the Financial Aid Office for this interview if they withdraw from the college.
Federal Work-Study Program: The Federal Work-Study Program (FWS) is a federally funded program designed to offer students part-time employment while in school. It is available to both full-time and part-time (at least six hours) matriculating students. Students are employed on campus, ideally in work related to their academic and vocational goals. A student qualifying for Federal Work-Study employment may work between five and 20 hours a week during the academic year and up to 40 hours a week during the summer. All job referrals are made by the Office of Student Financial Aid.

Federal Supplemental Educational Opportunity Grant: The Federal Supplemental Educational Opportunity Grant (FSEOG) is a federally funded program administered by Canisius College and based on financial need. Recipients may be either full-time or part-time (at least six hours) matriculating students. At Canisius, grants range from $200 to $1,500 a year. This is a grant, not a loan. FSEOG funds are limited. FSEOG will be awarded to students with exceptional financial need, that is, to students whose financial need exceeds 50% of the student budget under which they are evaluated. Priority will be given to students who have the lowest expected family contributions and/or who are eligible for the Federal Pell Grant Program.

Canisius College Academic and Need-Based Scholarships

Presidential Academic Scholarships: The Scholarship Committee annually awards a limited number of Presidential Scholarships, valued at $20,000 per year, based solely on academic ability.

All incoming freshmen who are offered Canisius Presidential Academic Scholarships must maintain a 3.0 cumulative G.P.A. at the college in order to retain their scholarship aid. Students interested in this scholarship should submit a completed Application for Admission to the college by November 15th of their senior year in high school for priority consideration. A separate scholarship application is not required.

Ignatian Scholarships: The Scholarship Committee annually awards a limited number of Ignatian Scholarships, valued at $15,000 per year, based solely on academic ability. All incoming freshmen who are offered Canisius Ignatian Scholarships must maintain a 3.0 cumulative G.P.A. at the college in order to retain their scholarship aid. Students interested in this scholarship should submit a completed Application for Admission to the college by November 15th of their senior year in high school for priority consideration. A separate scholarship application is not required.

Canisius College also funds renewable scholarships for incoming freshmen which range from $5,000 to $12,000 per academic year. Among the scholarships awarded are the Trustee’s Scholarships, the Dean’s Academic Scholarships, the Benefactor’s Scholarships and the Academic Scholarships.

These scholarships are awarded on the basis of SAT or ACT scores and high school records. A separate scholarship application is not required. In order to be eligible for one of these scholarships, a student must:

1. Be accepted for admission to Canisius; and
2. Take the SAT or ACT tests. (Scores for tests taken before December 31 of the senior year are preferred.)

Freshmen who are offered these scholarships are required to maintain good academic standing. All applicants are encouraged to apply for financial aid.

Martin Luther King Scholarships: The purpose of the Martin Luther King Scholarship Program is to assist minority students in meeting their educational expenses. Scholarships ranging from $5,000 to $20,000 are awarded based on academic merit. These scholarships are renewable for four years. In order to renew scholarships, the student must maintain good academic standing. Some of the larger scholarships require a minimum cumulative G.P.A of 3.0.

Other Programs

Higher Education Opportunity Program: The Higher Education Opportunity Program (HEOP) is a New York State education program. The purpose of this program is to assist academically under-prepared and financially disadvantaged students. In order to qualify, students must meet specific criteria in each of these areas. Students interested in applying for admission under this program should contact the Canisius Opportunity Programs for Education (COPE) Office for more information. All students in this program must file the FAFSA. This program may be affected by State appropriations.

Children of Alumni: Full-time undergraduate students who are children of Canisius alumni are eligible for an alumni grant of $1000.

Army ROTC Scholarship Program: The purpose of the Army ROTC Scholarship Program is to assist outstanding students in paying for their college education while they complete requirements for a commission in the U.S. Army Reserves, the National Guard, or the United States Army. High school students interested in the four-year scholarship should contact the high school guidance counselors or the Professor of Military Science at Canisius College. Students may also apply on the Internet at www.armyrotc.com. The application deadline is November 15 of the student’s senior year in high school. Three- and two-year scholarships are also available to Canisius College students. It is not necessary that a student be enrolled in the Military Science curriculum to qualify for these scholarship awards. Deadlines for these awards are March 15 of the sophomore year for the two-year scholarship and March 15 of the freshman year for the three-year scholarship.

The scholarship is $20,000 for tuition and mandatory fees. All qualifying students will also receive a flat rate of $600 for books, and a subsistence allowance of up to $400 per month for the length of the scholarship.

Canisius College also provides a grant to assist resident ROTC Scholarship recipients with their room and board costs. In addition, some academically qualified students are eligible to receive a subsidy from Canisius College to meet the balance of their tuition not covered by the ROTC Scholarship.
Religious/Clergy Fee Waivers: The college sponsors a partial (two-thirds) tuition waiver program for religious/clergy. Applications for this program are available at the Financial Aid Office. These applications must be filed during the semester in which the waiver is desired.

Other Awards: The Canisius College Office of Student Financial Aid also has information about the following scholarships and financial aid programs: Regents Awards for Children of Deceased or Disabled Veterans; State and Federal Aid to Native Americans; and Veterans Administration Educational Benefits. The Buffalo Board of Education publishes an annual catalog of Scholarships and Loans Available through Local Organizations.

Endowed Scholarships: Endowed scholarships exist in perpetuity. These are made possible by endowed gifts, which yield an annual income sufficient to defray, in whole or in part, the tuition and fees of the student. The annual income from endowed scholarships partially finances the scholarship program of Canisius College according to the wishes of the donors. Endowed scholarships, entire or partial, are listed with the year of foundation.

Ramon E. Abarca Scholarship (1998)
Irene E. Adamski ’81 Scholarship (1987)
Aetna Casualty & Life Scholarship (1984)
Andy Anselmo ’45 Music Scholarship (2004)
Craig R. Arrison ’87 Track & Cross Country Scholarship (1998)
Frederick G. Attea ’61 / Phillips, Lytle, Hitchcock, Blaine & Huber Scholarship (1992)
Mr. & Mrs. Nathaniel A. Barrell Scholarship (1988)
Anthony J. & Mary K. Battaglia Family Scholarship (1992)
Joe & Ange Battaglia Scholarship (1998)
William D. Bennett ’61 Memorial Scholarship (1998)
Julius Binz Family Scholarship (1987)
Blue & Gold Scholarship (1997)
James R. Boldt ’84 MBA Scholarship (1997)
Dr. Frank J. ’41 & Matio Bolgan Scholarship (1998)
Charles V. ’56 & Donald F. ’64 Borzilli Scholarship (1986)
Raymond Bosch Scholarship (1987)
Vincent C. Bowhers ’50 Scholarship (1998)
Leo A. ’56 & Patricia A. Bradley Scholarship (1989)
Bristol-Myers Squibb Co. Scholarship (1986)
Dr. Barbara H. Brock Memorial Scholarship (1991)
Joseph L. Brock Memorial Scholarship (1988)
Buffalo Hotel Supply Company Scholarship (1990)
The Buffalo News Scholarship (1998)
Thomas A. Buscaglia Scholarship (1997)
Louis Calderone Foundation Scholarship (1997)
Dr. Donald E. Calvert Scholarship (1987)
Canisius College Alumnae Association Scholarship (1984)
Canisius College Board of Regents Scholarship (1991)
Canisius College Commemorative Scholarship (1994)
Canisius College Council on Accountancy Scholarship (1991)
Virginia F. & R. Carlos Carballada ’56 Scholarship (1999)
Edward Burke Carey ’69 Entrepreneurial Scholarship (2001)
Frances G. Churchill Scholarship (1987)
Dr. Charles F. Cipolla ’41 Memorial Scholarship (2004)
Joseph Ciraulo ’94 Memorial Scholarship (1998)
Hon. Ernest L. Colucci ’29 Memorial Scholarship (1994)
Fidelis L. Comaratta, M.D. ’56 Memorial Scholarship (1993)
Computer Science Department Scholarship (1993)
Patricia Z. Connolly ’74 Scholarship (1999)
Terrence M. Connors ’68 Scholarship (1999)
Mary S. Conrad ’24 Memorial Scholarship (1992)
Dr. Joseph R. Coppola ’40 Scholarship (1989)
Craig J. Costanzo ’67 Family Scholarship (1996)
John & Ella Cullen Scholarship (1996)
Warren B. Cutting Scholarship (1982)
Thomas W. ’42 & June E. Dalton Scholarship (1996)
Chester E. ’50 & Anne A. Daly Scholarship (1998)
Eleanor P. Davis Scholarship (1992)
Deloitte & Touche LLP Scholarship (2001)
Peter F. DeLuca Scholarship (2001)
Dr. John A. ’38 & Marjorie M. Denerly Scholarship (1987)
Judge Charles S. Desmond ’17 Pre-Law Scholarship (1987)
DeSpirt Foundation Scholarship (2000)
Hon. Michael F. Dillon ’50 Memorial Scholarship (1992)
Winifred E. DiVita Memorial Scholarship (1985)
Dr. Alfred H. & Irene N. Dobrak Scholarship (1990)
Dopkins & Company LLP Scholarship (1983)
John F. Driscoll Memorial Scholarship For Women In Medicine (1997)
Eberl Families Scholarship (1991)
Charles T. Eppolito ’43 Memorial Scholarship (1998)
Ernst & Young Scholarship (1992)
Edward E. Fallon ’38 Memorial Scholarship (1991)
Angelo M. ’66 & Carol A. Fatta Family Scholarship (1997)
First Niagara Bank Foundation Scholarship (1998)
Lane Ford ’87 Memorial Scholarship (1998)
William J. Frederick ’69 Scholarship (2000)
Dr. Maurice B. Furlong ’31 Scholarship (1987)
Leo R. ’40 & Marie G. Futia Scholarship (1999)
Cari Anne Gasiewicz Memorial Scholarship (2004)
William C. Gates ’62 Scholarship (1994)
Edward C. Gelia ’54 Scholarship (1995)
David M. Gentile ’72 Memorial Scholarship (1999)
Philip & Mary Gerhardt Scholarship (1983)
Gernatt Scholarship (1998)
Gerard A. Gilbride Family Scholarship (1987)
Norman O. Giles Family Scholarship (1989)
Goldens Foundation Inc. Scholarship (2002)
Carl J. Graf, M.D. ’39 Scholarship (1980)
Irene A. Grandits Memorial Scholarship (1997)
Graphic Controls Corp. Scholarship (1984)
Dr. Edward J. Gress Scholarship (1994)
Everest A. Guest Scholarship (1976)
George & Ella Haberl Scholarship (1982)
Leland A. Hazard Scholarship (1986)
William Randolph Hearst Scholarship (1998)
Hoskins Family Foundation Scholarship (1997)
Martin F. Idzik ’63 Scholarship (1998)
Genevieve B. Jacobs Family Scholarship (1976)
Harry R. James ’70 Memorial Scholarship (1992)
Frank J. Janes / Ernest S. LaFrenier Families Scholarship (1995)
Gene F. Jankowski ’55 Scholarship (1981)
Jesuits of Loyola Hall Scholarship (1988)
Dr. James P. Jordan ’22 Memorial Scholarship (1986)
Norman, Saide L. & Bedie N. Joseph Scholarship (1985)
Marvin L. Kahn Scholarship (1992)
Edward F. Kane ’33 Memorial Scholarship (1997)
Dr. William F. Keane Memorial Scholarship (1989)
Thomas F. Kileen ’25 Memorial Scholarship (1996)
Eileen Hogenkamp Klubek ’90 Scholarship (1995)
Jean A. Knazak Scholarship (1991)
Knopp Family Scholarship (1998)
John W., Jr. ’49 & Mary M. Koessler Scholarship (1997)
Mary R. Koessler Scholarship (1991)
Elizabeth N. Kolber ’72 Scholarship (1993)
Paul J. ’75 & Nancy B. Kolkmeyer Scholarship (1998)
KPMG LLP Scholarship (1994)
Matthew L. Kruse Scholarship (1981)
Hon. John J. LaFalce ’61 Scholarship (1990)
Thomas D. ’77 & Deborah W. ’78 Leaper Scholarship (1999)
Hubert George & Alice Shyne Leising Scholarship (1998)
Lenahan Family Scholarship (1998)
R. Scott Lesher Scholarship (1991)
Lillian M. Levey ’67 Scholarship (1989)
Mary R. Lombardo ’50 Scholarship (1997)
John J. & Eleanor Loncto Scholarship (1997)
Stephen T. LoVullo ’74 Scholarship (2004)
Bess Nowicki Luchowski Scholarship (1995)
Lumsden & McCormick, LLP Accounting Scholarship (1996)
M&T Bank Accounting Scholarship (1992)
Thomas O. O’Connor Scholarship (1994)
Walter & Marie Maday Scholarship (1982)
Louis & Theresa Maglione Scholarship (1987)
Frank J. Maher, Jr. ’43 Memorial Scholarship (1998)
Dr. Milford C. ’47 & Dione Maloney Scholarship (2000)
Robert A. Mariano Family Scholarship (1987)
Dr. Bernard L. Martin Scholarship (1978)
George M. Martin ’42 Student Grant Program (1990)
Matthews, Bartlett & Dedecker, Inc. Scholarship (1992)
MBA Alumni Scholarship (1986)
James H. McCabe ’71 Family Scholarship (1998)
Dr. James P. McDermott Memorial Scholarship (2002)
Francis M. McDonald ’42 Memorial Scholarship (1997)
Mary G. McIlcicuddy ’66 Family Scholarship (1998)
Dr. Raymond R. Meyers’32 Memorial Scholarship (1991)
Ben Michelson Scholarship (1998)
John M. Montfort ’51 Memorial Scholarship (1990)
Wilfred K. Moran Scholarship (1986)
Michael T. Morrisey Memorial Scholarship (2001)
William W. Moyer ’72 MBA Scholarship (1997)
Musarra-DuCouet Families Scholarship (1980)
Native American Scholarship (1992)
Richard & Evelyn Naughton Scholarship (2002)
Stella Nawrocki Scholarship (2000)
Harrison R. Naylor ’55 Scholarship (2003)
Richard A. Neil ’64 Family Scholarship (1991)
David & Marianne Nettina Scholarship (2001)
Louis & Antoinette Neubeck Scholarship (1989)
Professor Edwin L. Neville Graduate Scholarship (2000)
New York State Federation of Home Bureaus Scholarship (1991)
Nosek Family Scholarship (1997)
Ethel O’Brien Scholarship (1980)
Occidental Women’s League WISE Scholarship (1990)
Joseph M. ’46 & Mary K. O’Connell Scholarship (1990)
John R. Osier Scholarship (1992)
Oncologic Foundation of Buffalo Scholarship (2000)
R. John Osha Memorial Scholarship (1992)
Pawenska Family Scholarship (2001)
Pernagreenwald Family Finance Scholarship (1992)
Petrina Family Scholarship (1998)
James T. Pfeiffer ’67 Scholarship (1999)
Donald C. Pollock ’68/ Freed Maxick & Battaglia Scholarship (1994)
Richard P. Powers ’63 Scholarship (1994)
Alice Ren Pouynt & Walter Pouynt Scholarship (1995)
Price Waterhouse Norton R. Lowe Scholarship (1992)
Ronald A. Ruccia ’90 Family Scholarship (2002)
Frank G. Raichle Pre-Law Scholarship (1981)
Wayne R. Reilly Family Scholarship (1997)
Joseph J. Ricotta, M.D. ’41 Memorial Scholarship (1995)
C. Anthony ’73 & Judy Rider Scholarship (1997)
Mary Beth Riley ’91 Scholarship (1992)
Helen G. Rochford ’35 Memorial Scholarship (1997)
Arthur L. Rohmer Pre-Medical Scholarship (1990)
E.J. ’40 & Catherine Rothfuss Scholarship (1998)
Vincent G. Roux ’90 Scholarship (1998)
Melvin E. Rupp, Sr. Scholarship (1985)
Louis Russo Family Scholarship (1991)
Frank J. Rustich ’35 Scholarship (1987)
James J. Ruda ’70 Scholarship (2005)
Leo & Catherine Sauer Scholarship (1974)
Leo & Lucy Scarpino Scholarship (1986)
Tubby L. Scarpino ’36 Scholarship (1991)
Dr. Arthur J. ’43 & Elizabeth A. Schaeter Scholarship (1994)
Marjorie G. Schaefler Memorial Scholarship (1990)
Thomas J. Schillo Memorial Scholarship (1986)
George A. Schneider Memorial Scholarship (1997)
J. Frederick Schoellkopf, IV Scholarship Awards in Management Studies (1970)
Dr. George E. Schreiner ’43 Family Pre-Medical Scholarship (1990)
Joanne B. & Dr. George E. Schreiner ’43 Scholarship (1987)
Georgia Suzanne Schreiner Scholarship (2005)
Robert Prince Schreiner Memorial Scholarship (1999)
Schwartz Family Scholarship (2001)
Frank A. Sedita '30 Scholarship (1980)
Austin V. & Lillian J. Signeur Scholarship (1992)
Robert J. Slater '59 Scholarship (1987)
Thomas G. Smith '71 Scholarship (1997)
Tim Smith Baseball Scholarship (2002)
Vincent Sobierański Scholarship (1991)
Stanley P. Spisiak Scholarship (1984)
Robert T. '51 & Marion Staeberl Scholarship (2000)
Starling/Stachowski '70 Scholarship (1996)
Dr. Daniel P. Starr '58 Athletic Scholarship (2000)
Chester Stranczek Scholarship (1998)
Robert J. Stransky Scholarship (1998)
Lester J. Sues '26 Scholarship (1985)
Albert F. Swierat, CPA '46 Scholarship (1991)
Harlan J. Swift Scholarship 1987)
Stanley P. Szymanski Scholarship (1996)
Reginald B. Taylor Scholarship (1982)
Towne Automotive Dealerships Scholarship (1981)
Treanor Family Scholarship in Memory of Win. Patrick Treanor '95 (1998)
Tuscarora Tribal Business Council Scholarship (1993)
Howard J. Van Nortwick '34 Scholarship (1988)
Lawrence J. Vilardo '77 Family Scholarship (1998)
Eileen & Rupert Warren Scholarship (1992)
Dr. Marilyn G.S. Watt Memorial Scholarship (1993)
Leslie Jo Waytena '81 Memorial Scholarship (1994)
Lawrence A. Wien Scholarship (1985)
Ralph C. Wilson, Jr. Sports Scholarship (1994)
Richard E. Winter '42 Scholarship (1997)
Morton H. '66 & Carol A. Wittlin Scholarship (1994)
Lee C. Worrall & Family Scholarship (2000)
Robert W. Wunsch, Jr. '76 Family Scholarship (1987)
Mary Lou & Robert E. '56 Yoviene Scholarship (1998)
Rose C. Zaidel Scholarship (2001)
Edna Galvin Zeman Scholarship (1982)
Margaret M. Zeman Scholarship (2000)
Margaret Griffin Zoll Memorial Scholarship (2003)
Alfred J. '39 and Mary T. Zolner Memorial Scholarship (1998)

Federal Stafford Student Loans
(subsidized & unsubsidized)
Federal Stafford Student Loans are available to undergraduate and graduate students with demonstrated financial need. The maximum loan amounts available to undergraduates are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Maximum Loan Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen</td>
<td>$2,625 each year</td>
</tr>
<tr>
<td>Sophomores</td>
<td>$3,500 each year</td>
</tr>
<tr>
<td>Juniors and Seniors</td>
<td>$5,500 each year</td>
</tr>
</tbody>
</table>

PLEASE NOTE: a combination of subsidized and unsubsidized Federal Stafford Loans cannot exceed the class year limits listed above for dependent students.

The total undergraduate Federal Stafford amount (both subsidized and unsubsidized combined) cannot exceed $23,000.

Independent undergraduates may borrow up to an additional $4000 for their first and second years and $5000 for their third, fourth, and if necessary fifth year of study through the Federal Unsubsidized Loan Program. Students are required to pay interest on this loan while they are in school.

How to Get a Loan: The student must submit a Free Application for Federal Student Aid (FAFSA). New student borrowers will receive instructions for on-line processing of the Electronic Master Promissory Note (E-MPN). Previous borrowers will simply receive a guarantee notice in the mail.

Three factors must be considered to determine Federal Stafford Loan eligibility: educational costs, other financial aid the student will receive and the expected family contribution as determined through an approved needs-analysis system. Therefore, all students must submit a FAFSA before the Federal Stafford Loan application can be processed. The school must report these figures to the lender and certify the student’s enrollment status.

A loan is usually for a single academic year. Applications for additional loans for successive years must be made to the same lending institution. Prior to graduation or withdrawal, the student should complete a loan exit interview. The purpose of this interview is to explain the rights and responsibilities, including repayment obligations.

Paying Back a Loan: The student is responsible for:

1. Repayment of the amount borrowed
2. Interest on the amount borrowed
3. Fees paid at the time he/she receives the loan check

When a student gets a loan, the terms of repayment are explained. Students must be sure that they understand all repayment terms before signing the loan’s promissory note. If the student fails to meet these terms, he/she is in default and the entire balance of the loan becomes due.

Costs: The interest rate for all Federal Stafford Loans on which the first disbursement is made on or after July 1, 1994 (regardless of any previous loan history) will be the current variable rate. For subsidized loans, there are no interest payments while

Education Loans
A loan is money the student borrows. It must be paid back. A loan is a serious obligation. Students should borrow only what they need. Education loans are for tuition and fees, room and board, books, transportation and personal expenses.

An education loan cannot exceed the student’s total educational costs minus other student financial aid and, if required, a family contribution. Education loans have lower interest rates than most other types of loans.

There are three loan programs administered by the New York State Higher Education Services Corporation.

- Federal Stafford Student Loans (subsidized)
- Federal Stafford Student Loans (unsubsidized)
- Federal Parent Loans for Students (Federal PLUS)

The loan money is provided by banks, credit unions, savings and loan associations, and pension funds in New York State.
the student is in school and for six months afterwards. Students who borrow through the unsubsidized Federal Stafford Loan must begin to pay the interest while in school. Fees are 3 percent of the amount borrowed. The fees are due when the student is issued the check. The bank will reduce the check by the amount of the fees.

Federal Parent Loans for Undergraduate Students (Federal Plus)
These loans are for parents of financially dependent undergraduate students. Parents may borrow up to the cost of attendance minus financial aid per year per child. A student should apply for a Federal Stafford Loan before the parent applies for Federal PLUS. PLUS pre-approval forms are available in the Financial Aid Office.

Costs: Annual interest is variable. For all Federal Parent Loans approved, an origination fee of 3 percent will be charged. The fee is due when the parent is issued the loan check. The bank will reduce the check by the amount of the fee.

Repayment: Repayment of the amount borrowed plus interest begins on the day the loan is disbursed. The minimum monthly payment is $50. Repayment must be completed within 5-10 years depending on how much the parent borrowed.

Peter Canisius Loan: The Peter Canisius Loan Fund is an institutional program established to assist Canisius students who are ineligible to borrow from the Federal Perkins Loan Program and the Federal Stafford Student Loan. Full-time undergraduate and graduate students may borrow up to $3,000 per year. Part-time students are eligible to borrow up to one half of the maximum amount per year. One co-signer is required of each applicant. The credit ratings of the co-signer and the borrower must be approved before the loan is disbursed. Repayment of the loan, with an annual percentage rate of 5 percent, begins nine months after the borrower graduates or terminates study. The maximum repayment period is ten years, but it is adjusted according to the size of the individual loan.

Financing Options
The following options are available to assist students and their parents in financing a Canisius education:

1. Griffin Tuition Payment Plan: This plan allows parents to budget tuition payments over a full academic year. An annual fee of $50 is charged. Further information is available at the Financial Aid Office or the Office of Student Accounts;
2. Canisius College Installment Loan: A student who is unable to pay his/her bill in full by the due date may pay the balance in monthly payments by signing a 3-month/3-payment semestery Installment Loan. Installment Loans are subject to an administrative fee, ranging from $30 to $195 depending on the amount of the outstanding balance; and
3. Home Equity Loan: The Tax Reform Act of 1986 allows interest to be deductible if it is on a debt secured by a residence, up to the value of the residence (purchase price and improvements plus any amount incurred after August 16, 1986) for “qualified medical and educational expenses.” This provision allows homeowners to retain the option of subsidizing loans for their children’s education by deducting interest payments on these loans.

Other Information
Awards Notification: Freshmen applicants who submit all necessary forms by February 15 are notified by the Student Financial Aid Office by April 1, or before the May 1 Candidate Reply Date. Upperclassmen and graduate students who submit applications by April 15 receive award notices by July 1. Students submitting applications after April 15 are notified as soon as possible.

Over-Awards: Each year a number of financial aid recipients are “over-awarded.” As a result, checks are withheld, and, in some cases, students are billed for funds already disbursed. This problem arises because of the length of time needed to match funds from various institutional sources and/or outside agencies against the individual student's record. To avoid this problem, students are urged to notify the Student Financial Aid Office promptly when they receive additional funds from any source not listed in their award letters, or when a student changes his/her enrollment status.

Financial Aid Check List: To be evaluated for possible financial aid, the student must submit the following forms each academic year:

1. Free Application for Federal Student Aid (FAFSA) and a TAP application. These applications are available in high school guidance offices, on-line at www.fafsa.ed.gov, or in the Canisius College Student Financial Aid Office. The TAP application is available to New York State residents once the FAFSA has been submitted by visiting the New York State TAP link on the on-line FAFSA site or by visiting Anytime TAP at www.hesc.com;
2. Canisius College Financial Aid Application, available in the Canisius College Student Financial Aid Office; and
3. If requested, Federal Income Tax 1040 Form (parents and student) for the previous calendar year when available and/or letter from Social Services, Social Security, or Veterans Administration or other requested verification of income including child support

Items 2 and 3 should be returned to the Canisius College Student Financial Aid Office. The others are to be sent to the address on the application. Students are reminded that financial aid awarded for the freshman year or any other year does not guarantee aid for the following year. Students must re-apply for financial assistance each year.

Financial Assistance Information for Students:
Section 485 of the Education Amendments of 1998 legislates that institutions participating in Title IV Student Aid Programs shall provide prospective and enrolled students with information about student aid at their respective institutions.

Canisius College has a Student Financial Aid Policy and Procedures Manual which is updated periodically. This manual describes the following:
1. Institutional, federal, and state student aid programs available at Canisius;
2. Procedures for awarding student aid at Canisius;
3. Application processes and deadline dates for the various student aid programs;
4. Student rights and responsibilities under the appropriate student aid programs;
5. Appropriate budgets, outlining an estimated cost of attendance, which includes tuition, fees, books and supplies, room and board on campus and other related costs;
6. Institutional refund policy; and
7. Academic standards needed to retain financial eligibility.

The Student Financial Aid Office (Old Main 100) will provide the above financial aid information upon request. Information pertaining to academic programs, special services available to the handicapped and institutional accreditation is explained elsewhere in the college catalog.

Satisfactory Academic Standing
To receive student financial aid, a student must remain “in Good Academic Standing.” This means that students must: (1) make satisfactory academic progress toward the completion of their program requirements and (2) pursue the program of study in which they are enrolled. The two elements of program pursuit and satisfactory academic progress must be met for each term of study in which an award is received.

NOTE: These standards are subject to change upon legislative changes by New York State and/or the federal government.

Satisfactory Progress: A student must acquire a minimum number of credits at each semester interval and a minimum cumulative G.P.A. Students must meet the following satisfactory progress standards based on a 4.0 grading system:

Undergraduate:
Before being certified for aid for this semester:
1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th
A student must have accrued at least this many graded credits:
0 3 9 21 33 45 60 75 90 105

With at least this Cumulative Quality Point Average:
0 1.0 1.2 1.3 2.0 2.0 2.0 2.0 2.0 2.0

For example:
Student A has accumulated 18 hours and has a 1.2 G.P.A. She is entering her fourth semester and fourth payment of aid and needs 21 hours and a 1.3 G.P.A. She is ineligible for New York State student aid because she does not meet the satisfactory progress requirements.

Program Pursuit: A student must receive a passing or failing grade in a certain percentage of a full-time course load. The percentage increases from 50 percent of the minimum full-time load in each semester of study in the first year for which an award is made, to 75 percent of the minimum full-time load in each term of study in the second year for which an award is made, to 100 percent of the minimum full-time load in each term of study in the third and each succeeding year for which an award is made. Grades of W (indicating a student’s withdrawal from a course) do not satisfy Program Pursuit requirements. Full-time students must meet the following requirements for Program Pursuit:

Undergraduate:
Before being certified for aid for this semester:
1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th
Minimum credit hours a student must have completed in the previous semester to meet Program Pursuit requirement:
0 6 6 9 9 12 12 12 12 12

For example:
Student B has accumulated 18 credit hours and has a 2.0 G.P.A. He is entering his third semester of school and his third payment of aid. At this point, he needed nine hours and a 1.2 to maintain satisfactory progress. However, during his second semester, he completed only three credit hours. Consequently, he did not maintain the program pursuit aspect and is ineligible for his third payment.

Waivers: If a student fails to maintain program pursuit, fails to make satisfactory progress, or fails to meet both of these elements of good standing, the college may grant a waiver which would allow the student to receive financial aid for the next semester. A maximum of one waiver at the undergraduate level and one at the graduate level may be awarded to a student. The waiver will not be automatic since it is intended to accommodate only extraordinary cases. Waiver policies are somewhat different for aid received under federal Title IV programs and aid received under New York State programs.

Federal Programs: Each student’s progress will be evaluated every semester. Students will be required to meet the academic standards as outlined in the college catalog.

However, Canisius College will allow “all students a one-time probationary period” following their first adverse determination of satisfactory progress. During this probationary period, the students still will be considered to be maintaining satisfactory progress and are eligible for federal Title IV funds. The fact that a student was placed on probation must be made a part of his or her record.” (Source: official Federal Regulations) A one-time probationary period is defined as one academic semester.

Students not meeting satisfactory academic progress or program pursuit requirements will be placed on financial aid probation status for the ensuing semester of the student’s enrollment. Students will be allowed to retain their financial aid during the probationary semester.

Financial aid suspension will occur following the semester of probation if the student fails to meet the required academic standards. Reinstatement of aid will occur when the minimum standards have again been earned. Students may use summer classes (at their own expense) to improve their academic records sufficiently to reinstate their eligibility for financial aid. Only courses taken at Canisius College will affect a student’s G.P.A. Students must complete the requirements for a degree within 150% of the normal time allotted for program completion or within a maximum of six years.
The following aid programs are subject to the conditions described above:

Federal Pell Grant
Federal Perkins Loan
Federal Supplemental Educational Opportunity Grant (FSEOG)
Federal Work Study (FWS)
Federal Stafford Student Loans (subsidized and unsubsidized)
Federal Parent Loan for Undergraduate Students (Federal PLUS)

**New York State Programs:** A waiver will be granted if situations beyond a student’s control prevent the student from maintaining satisfactory academic progress or program pursuit. These situations must be documented.

The waiver will be granted only when there is reasonable expectation that the student will be able to meet the successive steps for financial aid eligibility as specified in the tables above.

Reasons for which waivers may be granted include:

1. personal medical problems;
2. family medical problems;
3. severe personal problems; and
4. other circumstances beyond the control of the student.

Any student wishing to request a waiver must submit to the associate dean of his/her division a written statement detailing the reasons why special consideration should be given. (A statement simply requesting a waiver is insufficient.) The written statement must be postmarked no later than ten calendar days after the date of the notice of loss of financial aid eligibility. Documentation supporting the stated reasons for special consideration must be provided and should be included with the written statement or should be forthcoming from appropriate third parties or agencies. The student is responsible for requesting that all documentation be sent or brought to the associate dean. Documentation should indicate that the student’s problems have been directly responsible for his or her inability to meet the satisfactory progress and/or program pursuit requirements.

The appropriate associate dean will review the student’s written statement and supporting documentation. If additional information is needed, the associate dean may require an appointment with the student. A student will be informed of the associate dean’s decision within seven calendar days of receipt of the student’s written request. The associate dean will confer with any student being granted a waiver to assure that the student is fully aware of his/her situation and that the student concurs with the granting of the waiver. The associate dean’s decision on the waiver request is final.

Award programs affected by this policy at Canisius College include the following student aid programs:

- Empire State Scholarship for Excellence
- Tuition Assistance Program (TAP) Aid to Part-Time Students (APTS)
- Children of Deceased and Disabled Veterans (CV) Award Children of Deceased State Correction Officers, State Civilian Employees of a Correction Facility (AT), and Fire Fighter Award
- Higher Education Opportunity Program (HEOP)
- Vietnam Veterans Tuition Award

Reinstatement of Canisius’ own institutional aid rests with the discretion of the Student Financial Aid Committee.

**Part-Time Students:** Part-time students may receive financial aid for up to twelve years, except when certain program limits have been reached. During each academic year of attendance as a part-time student, the student must maintain a cumulative quality point average comparable to that required of a full-time student, along with a comparable number of credits accumulated toward a degree. (See chart above.)

**Summer School:** Students who lose eligibility for financial aid at the end of an academic year can sometimes make up the deficiency by attending summer school at their own expense. The Financial Aid Office should be consulted regarding the student’s intention to do so and should be supplied with a transcript of grades after the completion of courses. Only courses taken at Canisius will affect a student’s quality point average.
Canisius College offers undergraduate curricula leading to the degrees of Bachelor of Arts (B.A.), Bachelor of Science (B.S.), and Associate of Arts (A.A.) with major concentrations as listed below. Each program is listed with the official approved title and HEGIS number by which it is registered with the New York State Education Department. Enrollment in programs other than those that are registered or otherwise approved may jeopardize a student's eligibility for certain student-aid awards. The programs are as follows:

**Arts and Sciences - Bachelor of Arts Degree**

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<tr>
<th>Field</th>
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<tbody>
<tr>
<td>Art History</td>
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<tr>
<td>Biochemistry</td>
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<td>Sociology and Anthropology</td>
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<td>Urban Studies</td>
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**Education and Human Services - Bachelor of Science Degree**

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<tr>
<td>Chemical Scienc</td>
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<td>Clinical Laboratory Scienc</td>
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<td>Economics</td>
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<tr>
<td>Marketing</td>
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<tr>
<td>Accounting/Professional</td>
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**Arts and Sciences - Associate of Arts Degree**

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<td>Social Sciences</td>
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**Certificates**

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<td>Criminal Justice</td>
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<td>Entrepreneurship</td>
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<td>European Studies</td>
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</tr>
<tr>
<td>Gerontology</td>
<td>5506-20</td>
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</tbody>
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**Pre-Professional Programs**

Canisius College offers pre-professional training for students wishing to pursue a graduate degree in a number of professions. Programs and/or concentrations are available in the following areas:
• Medicine
• Dentistry
• Law

Dual Degree Programs
Canisius College also offers Dual Degree programs in a number of areas. These programs allow for the completion of a bachelor’s degree in four years, followed by a master’s degree in approximately one year. These programs are as follows:

• A Dual Degree program leading to a Master of Business Administration degree is offered for students majoring in Biology, Biochemistry, Chemistry, Communication Studies, Computer Science, Economics (B.A.), English, French, German, History, Mathematics, Philosophy, Physics, Political Science, Psychology, Religious Studies, Sociology/Anthropology and Spanish.

• A Dual Degree program leading to a Master of Business Administration degree in Professional Accounting is offered for students majoring in a number of liberal arts or natural science areas.

Dual majors are also available in a number of areas. Further details are given below.

To earn a bachelor’s degree from Canisius College, the student must complete a minimal total of 120 credit hours. Within each curriculum these courses are distributed into three areas: (1) Core Curriculum; (2) Major Field Requirements; and (3) Free Electives.

To earn a degree of associate of arts, a student must complete a minimum of 20 courses of at least three credits each and a minimum of 60 credit hours.

Minors
Minors are available in the following areas:

Animal Behavior
Anthropology
Art History
Biblical Studies
Biology
Business
Business Management
Catholic Studies
Cell and Molecular Biology
Child, Family & Community Studies
Christian History, Thought & Ethics
Classics Departmental
Classics Interdepartmental
Clinical Psychology
Cognitive Science
Computer Science
Computer Theory
Criminal Justice
Economics
English
Environmental Biology

European Studies
Exercise Science
Fine Arts
Forensic Psychology
General Psychology
Gerontology
Health & Human Performance
History
Human Resource Management
Industrial/Organizational Psychology
Information Systems
International Business
International Management
International Relations
Irish Studies
Law & Public Policy
Literature
Management of Technology
Mathematics
Music
Neuroscience
North American Studies
Philosophy
Physics
Political Science
Religions of the World
Religious Studies
School Psychology
Social Sciences
Sociology
Sports Psychology
Studio Arts
Supply Chain Management
Theatre Arts
Women's Studies
Writing
Zoo Biology

Courses of Instruction
The college year consists of two semesters, fall and spring. The unit of instruction is the semester hour or credit hour, which consists of one lecture period of 50 minutes length each week for the entire semester. A course having three 50-minute class periods a week will, therefore, earn three semester hours of credit. A two- to three-hour period of laboratory work in the sciences or education each week is considered equivalent to one lecture period, and therefore, to one semester hour.

The number of semester credits to be earned in a given course is always indicated by the number after the course title.

Prerequisites: Some courses have prerequisites that must be met before a student can register for the course. Prerequisites include such requirements as the successful completion of previous courses, concurrent registration in another course, permission of the instructor or chair, and specific G.P.A. and course grade requirements. A student may not register for a course where prerequisites are indicated unless the
prerequisites have been successfully completed.

Note: For two-semester courses that are listed with one title and description (e.g., BIO 107-108 Human Anatomy and Physiology), it is understood that successful completion of the first semester is a prerequisite for admission to the second half of the course.

The numerical sequence used at Canisius College indicates the following: Courses numbered 100-199 and 200-299 are freshman/sophomore courses; 300-399 and 400-499 are junior/senior courses. Upperclassmen, on the approval of the department chair, may take courses in the 500-599 category. Courses in the 600 category are restricted to graduate students only.

All courses described in the catalog are scheduled for both 2005-2006 and 2006-2007 unless otherwise indicated. The college reserves the right to cancel a course because of inadequate registration or for reasons that cannot be foreseen. This is especially true of courses that are listed for 2006-2007. Because of the brevity of course descriptions, further information concerning the content of each course should be obtained from the individual department.

Cassette Studies
The Cassette Studies Program is a unique way of beginning or continuing one’s education when attendance at day or evening classes becomes difficult or impossible. The intent of the program is to assist individuals in pursuing an academic career that will lead to a Canisius College associate and/or bachelor degree. Most students served by CSP are adults whose life commitments make it difficult to follow a traditional college program. CSP is made up of both audio and video cassette courses that may be utilized at home, at the office or in any other convenient location.

Students must demonstrate a legitimate need to utilize this alternative mode of learning. Such students must receive authorization from the dean responsible for their academic program of study before registering for a cassette course. A minimum cumulative G.P.A. of 2.0 is required prior to enrollment in any cassette course. Course registrations are limited. Students should contact their associate dean for a list of courses available on cassette. In addition to tuition, a Cassette Program fee of $225 is charged.

Core Curriculum
In keeping with its liberal arts ideals and objectives, Canisius College requires that all its students complete a rounded program of humanistic studies embracing art and literature, the physical and social sciences, oral and written communication, history, philosophy, religious studies, mathematics and foreign languages. This core curriculum has two parts.

PART I includes four General Studies courses in the fields of composition and literature (ENG 101 and 102), religion (RST 101) and philosophy (PHI 101). This group, which totals 12 credit hours, should be completed by the end of the sophomore year. ENG 101 and 102 are required to be taken during the freshman year. RST 101 and PHI 101 are recommended for either freshman or sophomore year, except that RST 101 may not normally be taken in the fall semester of freshman year.

PART 2 includes area studies courses in the natural sciences, social sciences, art and literature, history, philosophy, religious studies, mathematical sciences and foreign languages. The student must select two courses from each area, excluding the area related to their major field, for a total of 14 courses and 42 credit hours. At least two of these courses must be on the list of those designated as satisfying the International and Cultural Diversity requirement. Courses in Part 2 should be distributed throughout all four years of a student’s academic career.

Certain four-credit interdisciplinary courses have been approved by the Core Curriculum Committee as satisfying the criteria for two different areas. These courses may count as one course in each of those two areas. Students may include no more than three such courses toward fulfilling their area studies requirements. These courses will be listed in the Registrar’s course schedule each semester.

The core curriculum requirement totals 54 hours.

Major Field Requirements
The student must take at least ten courses of at least three credits each in the field of major concentration or in fields related to or associated with the major field.

Pre-Major Requirements: Before admission to a specific major concentration, the student must complete all courses specified as prerequisites by the department in which he or she intends to major.

Application for admission to a major program is made to the chair of the department in which the student plans to major. This is normally done in the spring semester of sophomore year, though earlier in some programs. Details may be found in the curriculum description or obtained from the department chair. Permission of the department chair must be submitted to the appropriate dean before the student is admitted to a major program.

Major Requirements: Each major has its own specific requirements, which are listed by the individual department under the heading “Curriculum.” For each major there is also a “Recommended Schedule,” which outlines the preferred sequence in which the courses should be taken. Students should make sure that any restricted electives are chosen from among the courses approved by the department involved.

Minors are available in over 35 areas, as listed previously. The requirements for each minor are outlined in the appropriate departmental sections.

Dual Majors: For serious, above-average students who wish to concentrate departmental sections of the catalog; others can be arranged on an individual basis by the chairs of the
two departments involved. In all cases the written approval of each chair and the dean is required. Some dual majors can be completed within the 120-credit-hour college minimum, but others will require additional coursework.

**Electives**
The remaining courses may be chosen in any area. These free electives complete the student’s requirements for the baccalaureate degree.

**Substitutions**
All degree requirements must be satisfied as stated in the catalog. Any substitutions must be approved in writing by the appropriate authority: the dean or associate dean for the core curriculum and the department chair for the major field requirements.

**Writing**
Writing is a way of learning as well as a way of communicating. The development of skill and fluency in the written use of language is inseparable from the development of skill and fluency in thought. As part of their learning experiences, students should expect to write in a variety of modes, from class notes, diaries and poems to examination essays and research papers. Opportunities for writing are a feature of every course in the college. To help develop skill and fluency in writing of various kinds, students may seek assistance from the staff of the Writing Lab.

**Academic Support Services**
Students whose prior academic record or performance on placement examinations indicates that they will need additional help to succeed in their college work will be counseled into special sections or courses that are designed to assist them in their future course of studies. Students may also be advised to take special courses or sections if their performance in the first year indicates such special attention may be helpful. When necessary, the college, working through the Academic Advisement Center, the Academic Development Center and the various departments, may require that such courses be taken.

**Summer Session**
The Canisius College Summer Session affords qualified graduate and undergraduate students educational opportunities of the same quality as the courses offered during the regular fall and spring semesters. Course offerings are planned especially for the following groups:
- Graduate students in Education and Business Administration.
- Undergraduate students who wish to complete required courses, acquire additional credits toward a degree, or make up deficiencies.
- Transient students, graduate and undergraduate, who are pursing degree work at other colleges and universities.

A Summer Session catalog is published each spring and is available from the Office of Student Records. Students planning to take undergraduate courses should consult that office. Graduate Education students should consult the office of the School of Education and Human Services. Graduate Business offerings are coordinated through the office of the Richard J. Wehle School of Business.

**Academic Advisement**
Students come to the college with diverse needs and varied backgrounds. The college believes that this diversity calls for individualized assistance as students develop into self-directed, independent learners. The college's Student Advisement Center is designed to provide professional assistance for students on an individual basis. Advisors help students understand the college's expectations and foster in them a sense of independence as learners and responsibility for achieving their educational goals. The advisor helps students recognize their academic strengths and weaknesses, establish realistic educational goals, and identify the courses and resources necessary to achieve these goals. The advisor provides academic guidance by interpreting institutional requirements, recommending courses of action, and referring students to other people or departments for assistance. The Student Advisement Center is located Bagen Hall, Room 103.

**Freshmen:** Each entering freshman is assigned an academic advisor who assists the student in the preparation of his/her initial course registration by explaining the college’s curriculum and discussing the particular program of study that interests the student. During the freshman year the student will meet with an advisor at least twice each semester to discuss performance, student needs, available resources and scheduling selections for subsequent semesters.

**Undecided Students:** Students who have not selected a major after their freshman year continue to receive academic advisement from the Student Advisement Center.

**Part-time Students:** Part-time students are required to meet with an advisor, and they are encouraged to use the services of the Advisement Center in selecting proper courses and understanding the resources that are available to assist them at the college.

**Upperclass Students:** Students who have selected a major should meet with a faculty member within the department of their major. The Student Advisement Center will coordinate the assignment of major advisors in conjunction with the student’s desires and the department’s resources.

**Adult:** Adult students are advised through the office for Adult Academic Services.

**Second Degree**
Individuals may enroll in a second baccalaureate degree if they can demonstrate that a second bachelor's degree is necessary for their career. Individuals must fulfill the admissions requirements for the degree sought and must receive approval from the appropriate dean prior to matriculation in the program. These individuals, however, should be advised that in most cases it is unnecessary to receive a second baccalaureate degree; rather they merely need to complete a prescribed series of courses that apply to
their career or life needs.

If they still wish to receive the second degree, the following policy will be the guideline for them: The credits received from the first bachelor's degree will be applied as transfer credit to the second degree. The first degree need not have been completed at Canisius. The minimum requirements for the second degree include the completion of at least ten three- or four-credit hour courses at Canisius, with at least six of the courses being taken from the selected major. The student must complete all the departmental requirements for the degree, as well as the general graduation requirements, including a 2.00 quality point average for all courses taken at Canisius.

Individuals should meet with the appropriate dean or advisor to outline the program of courses necessary for the completion of the second degree.

### Part 1 - General Studies Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Seminar I</td>
<td>3</td>
</tr>
<tr>
<td>RST 101</td>
<td>Introduction to Religious Studies</td>
<td>3</td>
</tr>
<tr>
<td>PHI 101</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** The following introductory level science courses may be used to fulfill the Area I requirement. These courses are primarily intended for science majors and may be more difficult than the regular Area I courses. Students should consult with their advisors before taking any of these courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>Cellular/Subcellular Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 102</td>
<td>Organismal Biology Prerequisite: BIO 101</td>
<td></td>
</tr>
<tr>
<td>BIO 107-108</td>
<td>Human Anatomy &amp; Physiology</td>
<td></td>
</tr>
<tr>
<td>CHM 111-112</td>
<td>General Chemistry</td>
<td></td>
</tr>
</tbody>
</table>

### Area II - Social Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 122</td>
<td>Cultural Anthropology (ICD)</td>
<td></td>
</tr>
<tr>
<td>COM 101</td>
<td>Communication in Contemporary Society</td>
<td></td>
</tr>
<tr>
<td>COM 205</td>
<td>Mass Communication &amp; Society</td>
<td></td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 121</td>
<td>Economics &amp; the Gender Gap</td>
<td></td>
</tr>
<tr>
<td>LIN 201</td>
<td>The Science of Linguistics</td>
<td></td>
</tr>
<tr>
<td>LIN 350</td>
<td>(CSI 250) Contemporary Linguistics</td>
<td></td>
</tr>
<tr>
<td>PSC 101</td>
<td>(CRJ 101) American Government &amp; Politics I</td>
<td></td>
</tr>
<tr>
<td>PSC 103</td>
<td>(CRJ 103) Constitutional Foundations of American Government</td>
<td></td>
</tr>
<tr>
<td>PSC 240</td>
<td>Intro to International Relations</td>
<td></td>
</tr>
<tr>
<td>PSC 250</td>
<td>Comparative Government &amp; Politics (ICD)</td>
<td></td>
</tr>
<tr>
<td>PSC 290</td>
<td>Politics in Film</td>
<td></td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introductory Psychology I</td>
<td></td>
</tr>
<tr>
<td>PSY 102</td>
<td>Introductory Psychology II</td>
<td></td>
</tr>
<tr>
<td>PSY 302</td>
<td>Personality Theory (Juniors/Seniors Only)</td>
<td></td>
</tr>
<tr>
<td>PSY 318</td>
<td>(WST 318) Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 320</td>
<td>Cross Cultural Perspectives in Psychology (ICD)</td>
<td></td>
</tr>
<tr>
<td>PSY 480</td>
<td>History &amp; Systems of Psychology (Juniors/Seniors Only)</td>
<td></td>
</tr>
<tr>
<td>SOC 110</td>
<td>(CRJ 110) Intro to Social Problems</td>
<td></td>
</tr>
<tr>
<td>SOC 111</td>
<td>Contemporary Social Problems</td>
<td></td>
</tr>
<tr>
<td>SOC 341</td>
<td>Race &amp; Ethnic Relations (ICD)</td>
<td></td>
</tr>
<tr>
<td>SOC 390</td>
<td>(WST 390) The Changing Family</td>
<td></td>
</tr>
<tr>
<td>WST 201</td>
<td>Introduction to Women's Studies</td>
<td></td>
</tr>
</tbody>
</table>

### Area III - Art & Literature

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHI 222</td>
<td>Chinese Civilization &amp; Culture</td>
<td></td>
</tr>
<tr>
<td>CLS 205</td>
<td>Mirror of the Past: Greece (ICD)</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The complete list of approved Area III courses is available in the course catalog or online at the university's website.
Area VI - Religious Studies

Introductory Level

RST 200  Introduction to Old Testament
RST 210  Introduction to New Testament
RST 215  (HIS 215) History of Christian Community I
RST 216  (HIS 216) History of Christian Community II
RST 217  (HIS 218) History of Christian Community III (ICD)
RST 218  Introduction to Western Religious Tradition (ICD)
RST 219  History of Eastern Orthodox Christianity (ICD)
RST 220  Introduction to Eastern Religions (ICD)
RST 221  Native American Religions (ICD)
RST 222  (ANT 223) African Religions (ICD)
RST 223  Religion in North America I
RST 224  Religion in North America II
RST 225  Religion & Society
RST 230  Catholic Belief Today
RST 231  Intro to Catholic Studies
RST 235  Religion and Politics
RST 236  Theology and Film
RST 240  Development of Jewish Religious Thought and Practice (ICD)
RST 260  The History of Catholic Belief

Intermediate Level

RST 300  The Problem of Suffering
RST 301  The First Three Gospels
RST 302  The Jesus: History, Spirituality, & Culture
RST 303  Ethics and the New Testament
RST 305  The Life and Teachings Of Jesus
RST 308  (CLS 308, HIS 308) Pagans & Christians
RST 309  (CLS 309) Greek and Roman Religion
RST 310  Matthew: The Church’s Gospel
RST 311  Paul’s New Testament Epistles and His Churches
RST 312  The Gospel, Letters and Revelation of St. John
RST 314  New Testament in Literature and Art
RST 315  Ancient Israelite Prophesy
RST 321  New Testament Society
RST 326  Freedom, Sin and Grace
RST 328  Sacramental Theology
RST 330  Zen and the Meditative Life (ICD)
RST 331  Religions of China (ICD)
RST 332  Islam: Tradition & Revival (ICD)
RST 340  (GRN 340) Moral Issues Today

Area VII - Mathematical Sciences

CSC 110  (CSI 110) An Introduction to Computing
CSC 111  (CSI 111) An Introduction to Programming
ECO 255  Business Statistics I
MAT 105  Finite Math
MAT 106  Calculus for the Non-Sciences I
MAT 107  Calculus for the Non-Sciences II
MAT 109  Calculus with Review I
MAT 110  Calculus with Review II
MAT 111-112  Calculus I & II
MAT 115  Calculus for Business I
MAT 116  Calculus for Business II
MAT 117/  PHY 223A Calculus I and II Integrated with General Physics I, Part I
MAT 118/  PHY 223B Calculus I and II Integrated with General Physics I, Part II
MAT 121  The Nature of Mathematics
MAT 131  Statistics and Computers
MAT 141  Inferential Statistics and Computers for Science
MAT 150  Excursions in Modern Mathematics
MAT 181  Symmetry
MAT 201-202-203 Mathematical Philosophy
PSY 201  Basic Statistics for Behavioral Science

Area VIII - Foreign Languages

Note: To meet the Area VIII requirement, students must pass either two courses at the intermediate level or higher in the foreign language they took in high school, or two courses at the elementary level or higher in a foreign language they did not take while in high school.

ASL 103  American Sign Language I
ASL 104  American Sign Language II
CHI 103-104  Elementary Chinese
CHI 113-114  Intermediate Chinese
CLG 101-102  Elementary Greek
CLG 201-202  Intermediate Greek
CLL 101-102  Elementary Latin
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLL 201-202</td>
<td>Intermediate Latin</td>
</tr>
<tr>
<td>FRC 103-104</td>
<td>Elementary French</td>
</tr>
<tr>
<td>FRC 115-116</td>
<td>Transitional/Intermediate French</td>
</tr>
<tr>
<td>FRC 123</td>
<td>French for Travel</td>
</tr>
<tr>
<td>FRC 124</td>
<td>French Society and Culture</td>
</tr>
<tr>
<td>FRC 133-134</td>
<td>French for Business</td>
</tr>
<tr>
<td>FRC 215-216</td>
<td>Advanced French (Review/La Francophonie)</td>
</tr>
<tr>
<td>GER 103-104</td>
<td>Elementary German</td>
</tr>
<tr>
<td>GER 113-114</td>
<td>Intermediate German</td>
</tr>
<tr>
<td>GER 123</td>
<td>German for Travel</td>
</tr>
<tr>
<td>GER 124</td>
<td>German Society and Culture</td>
</tr>
<tr>
<td>GER 133-134</td>
<td>German for Business</td>
</tr>
<tr>
<td>GER 215-216</td>
<td>Review/Advanced German</td>
</tr>
<tr>
<td>GER 323-324</td>
<td>Immersion in German Conversation &amp; Culture</td>
</tr>
<tr>
<td>ITA 103-104</td>
<td>Elementary Italian</td>
</tr>
<tr>
<td>ITA 113-114</td>
<td>Intermediate Italian</td>
</tr>
<tr>
<td>ITA 123</td>
<td>Italian for Travel</td>
</tr>
<tr>
<td>ITA 124</td>
<td>Italian Society &amp; Culture</td>
</tr>
<tr>
<td>JAP 103-104</td>
<td>Elementary Japanese</td>
</tr>
<tr>
<td>JAP 113-114</td>
<td>Intermediate Japanese</td>
</tr>
<tr>
<td>POL 103-104</td>
<td>Elementary Polish</td>
</tr>
<tr>
<td>POL 113-114</td>
<td>Intermediate Polish</td>
</tr>
<tr>
<td>RUS 103-104</td>
<td>Elementary Russian</td>
</tr>
<tr>
<td>SPA 103-104</td>
<td>Elementary Spanish</td>
</tr>
<tr>
<td>SPA 115-116</td>
<td>Intermediate Spanish</td>
</tr>
<tr>
<td>SPA 123</td>
<td>Spanish for Travel</td>
</tr>
<tr>
<td>SPA 124</td>
<td>Spanish Society and Culture</td>
</tr>
<tr>
<td>SPA 133-134</td>
<td>Spanish for Business</td>
</tr>
<tr>
<td>SPA 215-216</td>
<td>Review/Advanced Spanish</td>
</tr>
<tr>
<td>SPA 323</td>
<td>Immersion in Contemporary Hispanic Cultures</td>
</tr>
<tr>
<td>SPA 324</td>
<td>Introduction to Hispanic Literatures</td>
</tr>
<tr>
<td>SPA 338</td>
<td>Hispanic Civilization &amp; Culture II (ICD)</td>
</tr>
<tr>
<td>FAH 107</td>
<td>Introduction to NonWestern Art (ASIII)</td>
</tr>
<tr>
<td>FAH 108</td>
<td>African-American Art in Context (ASIII)</td>
</tr>
<tr>
<td>FAH 109</td>
<td>(URS 109) History of Architecture (ASIII)</td>
</tr>
<tr>
<td>FAH 210</td>
<td>(CLS 210) Ancient Egyptian and Near Eastern Art (AS III)</td>
</tr>
<tr>
<td>FAH 213</td>
<td>(CLS 213) Ancient Art: Greece and Rome (AS III)</td>
</tr>
<tr>
<td>FAH 224</td>
<td>Medieval Art (ASIII)</td>
</tr>
<tr>
<td>FAH 245</td>
<td>Renaissance Art (ASIII)</td>
</tr>
<tr>
<td>FAH 248</td>
<td>Baroque and Rococo Art (ASIII)</td>
</tr>
<tr>
<td>FAH 261</td>
<td>Impressionism in Context (ASIII)</td>
</tr>
<tr>
<td>FAM 119</td>
<td>Masterpieces of Music (ASIII)</td>
</tr>
<tr>
<td>FAM 120</td>
<td>19th Century Music (ASIII)</td>
</tr>
<tr>
<td>FAM 123</td>
<td>World Music (ASIII)</td>
</tr>
<tr>
<td>FAM 124</td>
<td>Afro-Centric Music (ASIII)</td>
</tr>
<tr>
<td>FAM 217</td>
<td>Medieval and Renaissance Music (ASIII)</td>
</tr>
<tr>
<td>HIS 106</td>
<td>The Medieval World (ASIV)</td>
</tr>
<tr>
<td>HIS 107</td>
<td>History of Modern Europe to 1815 (ASIV)</td>
</tr>
<tr>
<td>HIS 108</td>
<td>History of Modern Europe since 1815 (ASIV)</td>
</tr>
<tr>
<td>HIS 109</td>
<td>History of Asia to 1800 (ASIV)</td>
</tr>
<tr>
<td>HIS 110</td>
<td>History of Asia since 1800 (ASIV)</td>
</tr>
<tr>
<td>HIS 111</td>
<td>Men and Ideas in History (ASIV)</td>
</tr>
<tr>
<td>HIS 113</td>
<td>The Twentieth Century (ASIV)</td>
</tr>
<tr>
<td>HIS 131</td>
<td>History of Latin America to 1830 (ASIV)</td>
</tr>
<tr>
<td>HIS 132</td>
<td>History of Latin America since 1830 (ASIV)</td>
</tr>
<tr>
<td>HIS 211</td>
<td>(WST 211) Women in the Western World (AS IV)</td>
</tr>
<tr>
<td>HIS 218</td>
<td>History of Christian Community III (AS VI)</td>
</tr>
<tr>
<td>MAT 117/PHY223A</td>
<td>General Physics I, Part I (ASI &amp; ASVII)</td>
</tr>
<tr>
<td>MAT 118/PHY223B</td>
<td>General Physics I, Part II (ASI &amp; ASVII)</td>
</tr>
<tr>
<td>PHI 305</td>
<td>Time and Human Condition (AS V)</td>
</tr>
<tr>
<td>PHI 325</td>
<td>Philosophy of Art &amp; Beauty (ASV)</td>
</tr>
<tr>
<td>PSC 110</td>
<td>(HIS 170) Western Political Tradition I (ASIV)</td>
</tr>
<tr>
<td>PSC 111</td>
<td>(HIS 171) Western Political Tradition II (ASIV)</td>
</tr>
<tr>
<td>PSC 250</td>
<td>Comparative Government and Politics (AS II)</td>
</tr>
<tr>
<td>PSY 320</td>
<td>Cross Cultural Perspectives in Psychology (AS II)</td>
</tr>
<tr>
<td>RST 217</td>
<td>(HIS 218) History of Christian Community III (AS VI)</td>
</tr>
<tr>
<td>RST 218</td>
<td>Introduction to Western Religious Tradition (AS VI)</td>
</tr>
<tr>
<td>RST 219</td>
<td>History of Eastern Orthodox Christianity (AS VI)</td>
</tr>
<tr>
<td>RST 220</td>
<td>Introduction to Eastern Religions (AS VI)</td>
</tr>
<tr>
<td>RST 221</td>
<td>Native American Religions (ASVI)</td>
</tr>
<tr>
<td>RST 222</td>
<td>(ANT 223) African Religions (AS VI)</td>
</tr>
<tr>
<td>RST 240</td>
<td>Development of Jewish Religious Thought and Practice (ASVI)</td>
</tr>
<tr>
<td>RST 330</td>
<td>Zen and the Meditative Life (AS VI)</td>
</tr>
<tr>
<td>RST 331</td>
<td>Religions of China (AS VI)</td>
</tr>
<tr>
<td>RST 332</td>
<td>Islam: Tradition and Revival (AS VI)</td>
</tr>
<tr>
<td>RST 360</td>
<td>(ANT 360) Magic, Science &amp; Religion (ASVI)</td>
</tr>
<tr>
<td>RST 362</td>
<td>Fundamentalism (ASVI)</td>
</tr>
<tr>
<td>RST 421</td>
<td>Hinduism (AS VI)</td>
</tr>
<tr>
<td>SOC 341</td>
<td>Race &amp; Ethnic Relations (ASII)</td>
</tr>
</tbody>
</table>

**International and Cultural Diversity (ICD):**

At least two of the student's Area Studies courses must satisfy the International and Cultural Diversity (ICD) requirement. The following courses meet that requirement.

- ANT 122 Cultural Anthropology (ASII)
- CLS 103 (HIS 103) Greek History to 323 BC (ASIV)
- CLS 104 (HIS 104) Roman History: Origins to Constantine (AS IV)
- CLS 205 Mirror of the Past: Greece (AS III)
- CLS 206 Mirror of the Past: Rome (AS III)
- CLS 207 Mythology and Literature (ASIII)
- CLS 208 Epic Heroes (ASIII)
- ENG 203 (WST 211) Identity & Culture (ICD)
- ENG 282 African American Literature (ASIII)
- ENG 330 The Bible as Literature (ASIII)
- ENG 352 The Immigrant Experience in Literature (ASIII)
- ENG 376 Film as Literature (AS III)
- ENG 395 The Journey in Literature (AS III)
- FAH 101 Introduction to Art History I (AS III)
- FAH 102 Introduction to Art History II (AS III)
- FAH107 Introduction to NonWestern Art (ASIII)
Basic Curriculum Outline for Bachelor's Degree
(for students entering Canisius in the fall 1995 semester or later.)

1. Core Curriculum (Part I) - General Studies courses
   required of every student:
   ENG 101 English Seminar I
   ENG 102 English Seminar II
   RST 101 Introduction to Religious Studies
   PHI 101 Introduction to Philosophy (4 courses) (12)

2. Core Curriculum (Part II) - Area Studies (AS) courses required of every student:
   I. Natural Sciences
   II. Social Sciences
   III. Art and Literature
   IV. History
   V. Philosophy
   VI. Religious Studies
   VII. Mathematical Sciences
   VIII. Foreign Languages
   a. Each student must select two courses from each of seven of the eight areas, excluding the area related to the major field. (For example, students majoring in Political Science are excluded from Area II since they are required to take a number of social science courses.)
   b. Additional areas may be excluded in majors that have required courses in those areas. (For example, Physics majors are excluded from Area VII since they are required to take a number of mathematics courses.)
   c. Details regarding exclusions may be found in the Curriculum outline for each major.
   d. To meet the Area VIII requirement, students must pass either two courses at the intermediate level or higher in the foreign language they took in high school, or two courses at the elementary level or higher in a foreign language they did not take while in high school.
   e. A complete list of approved Area Studies courses may be found on pages 39-42.
   f. The AS courses should be spread out over the four years, as outlined in the Recommended Schedule for each major.
   g. At least two of the Area Studies courses must be on the list of those designated as satisfying the International and Cultural Diversity requirement (ICD).
   h. No more than three four-hour interdisciplinary courses which satisfy two different area requirements may be included in the fulfillment of Area Studies requirements. (14 courses)
   (42)

3. Major course requirements. The number of required courses varies from one major to another.
   The minimum number is 10. (10-22 courses) (30-66)

4. Electives - additional courses to bring the total to 120 credits. (12-0 courses) (36-0)

TOTAL (40 courses) (120)

Note: Students who entered Canisius before the Fall 1995 semester should follow the old Core Curriculum, as described in the 1994-95 and earlier catalogues. These students may use the following courses from the new Core to replace the old General Studies courses: ENG 101 in place of GST 001, ENG 102 in place of GST 002, RST 101 in place of GST 004, and PHI 101 in place of GST 005. Students who have not yet met the old Area VII requirement may use any of the courses in the new Areas VII and VIII to do so.
Patricia Clayback, Associate Dean, Director

Adult Academic Services provides academic guidance and support to adult undergraduate students. Adult students are defined as those who are at least 22 years of age upon admission, whether they are entering the college as freshmen, returning to the college after a period of absence or entering the college with academic credits from another institution. Students are advised and provided with information concerning academic programs, policies and procedures.

Advisement and Registration
The office of the Associate Dean/Director of Adult Academic Services is located in the Student Advisement Center, Bagen Hall 103. Adult undergraduate students meet with the Associate Dean or an academic adviser to plan their schedule of courses and receive their alternate pin number for registration. Questions relating to transfer credit, the pass/fail option, course withdrawal, or other academic policies concerning adult students should be directed to this office.

Academic Programs
All academic programs offered by the college are open to adult students. A variety of degree and certificate programs are available during the day and on a part-time basis in the evening.

Non-Collegiate Learning Assessment Program
The purpose of the program is to identify and document the life experience an adult student has accumulated and determine the applicability of that experience to an academic degree. To properly evaluate the level and extent of each student’s life learning, the college requires that each assessment process include the preparation of a portfolio that contains evidence of the student’s life experience. Each student must matriculate into a degree program at the college. The student is responsible for becoming familiar with the requirements of the degree program chosen and for verifying that the learning described in their portfolio applies to the particular degree. In constructing a portfolio, each student is given assistance by an individual portfolio adviser. At least three semesters and 36 credit hours must be completed at Canisius before a student may apply to the program.

Students must apply for admission to the program through the office of Adult Academic Services.

LLL 499 – NLAP (Non-Collegiate Learning Assessment Program)
Assessment of a student’s life experience based upon their individual portfolio. To be completed under the supervision of an adviser. Credit hours awarded depend on advisor assessment.

*******

Paula M. McNutt, Dean; Barbara J. Porter, Associate Dean

The College of Arts and Sciences offers curricula leading to undergraduate and graduate degrees through the departments and programs described below.

The undergraduate curricula provide programs in a wide range of disciplines in the humanities, fine arts, natural sciences, and social sciences. Each program combines the liberal-arts objectives of the Core Curriculum with the specific goals of the student’s major field.

The College of Arts and Sciences offers a graduate program leading to a master of science in Organizational Communication and Development.
Bioinformatics is an exciting field that involves the application of techniques from computer science, mathematics, statistics and information technology to problems in biology. Bioinformatics is a truly interdisciplinary science that teaches students both practical and conceptual tools for the understanding, generation, processing and propagation of biological information. Bioinformatics is important in all areas of biology, from human genetics to ecology, evolutionary biology, epidemiology and structural biology. At present, bioinformatics is transforming drug discovery, medical diagnostics and other biotechnology industry related areas.

This major is academically rigorous, requiring challenging course work in biology, chemistry, mathematics and computer science. The major is ideal for students interested in learning about and applying mathematical and computational techniques to problem solving in biology.

The bioinformatics program provides an appropriate background for students interested in entering the job market directly after completing a B.S. degree, with positions typically found in the biotechnology industry or academic research. The program also prepares students for graduate work in such fields as bioinformatics, biology, computer science and computational biology.

**Program Requirements:**

A minimum of 37 courses and 128 credit hours is required for graduation with a bachelor of science degree in bioinformatics, with the potential for as many as 136 credit hours depending on the bioinformatics electives chosen.

The program of study consists of Major Support courses that provide a solid foundation in biology, chemistry and mathematics, and Major Core courses that provide substantial background in computing and bioinformatics.

Bioinformatics elective courses give the student an opportunity to engage in further study in biology, chemistry, computer science or mathematics. Electives will be selected based on student interest in consultation with an advisor. The careful selection of electives will ensure that students attain sufficient expertise in a particular area of interest.

The bioinformatics curriculum is compatible with the pre-medical program. In order to minimally fulfill course requirements for medical school admission, students must elect three courses not required for the major: CHM 228 (Organic Chemistry II) and a two-semester physics sequence. These courses fit into the program of study as follows: any one of the three courses may be counted for the lower-division bioinformatics elective course, while the other two will comprise the two free electives. The additional three bioinformatics elective courses in the upper division should be selected from those most appropriate for the pre-medical program.

**Bioinformatics Curriculum**

1. **ENG 101, ENG 102, PHI 101, RST 101** (4 courses) (12)
2. **Area Studies:** Two courses from each of these areas: II, III, IV, V, VI, VIII (12 courses) (36)
3. **Major course requirements:** (19 courses)
   - A. Support Courses (9 courses)
     - BIO 101 Introduction to Cellular/Subcellular Biology (5)
     - BIO 102 Organismal Biology (5)
     - BIO 203 Cellular Biochemistry (3)
     - CHM 111 - 112 General Chemistry (10)
     - CHM 227 Organic Chemistry I (5)
     - MAT 111 Calculus I (4)
     - MAT 141 Inferential Statistics and Computers for Science (4)
   - B. Core Courses (10 courses)
     - BIF 101 Introduction to Bioinformatics (3)
     - CSC 111 Introduction to Programming (4)
     - CSC 212 Data Structures (4)
     - CSC 312 Large Scale Programming (4)
     - CSC 310 Information Organization and Processing (4)
     - BIF 400 Bioinformatics Capstone course (3)
   - Bioinformatics electives: four courses, three of which must be at the 300/400 level (12-20)
4. **Free Electives** (2 courses) (6)

**Total:** (37 courses) (128-136)

**Approved Bioinformatics Electives**

**Biology**
- BIO 404 Genetics
- BIO 405 Medical Genetics
- BIO 408 Biotechnology
- BIO 412 Evolution and Development
- BIO 419 Cell Biology
- BIO 432 Developmental Biology
- BIO 450 Molecular Biology

**Chemistry**
- CHM 228 Organic Chemistry II
- CHM 236 Physical Chemistry for Health Sciences
- CHM 301-302 Classical Physical Chemistry

**Computer Science**
- CSC 281 Automata Theory and Algorithms
- CSC 325 Computer Graphics
- CSC 330 Distributed Computing
CSC 333 Modeling and Simulation  
CSC 360 Intelligent Systems  
CSC 380 Web Development  
CSC 395 Software Engineering  

Mathematics  
MAT 112 Calculus II  
MAT 211 Calculus III  
MAT 222 Differential Equations  
MAT 341 Numerical Analysis  
MAT 351-2 Probability and Statistics  
MAT 354 Experimental Design and Statistical Computing  

Physics  
PHY 201-202 General Physics  
PHY 223-224 General Physics for Physical Science Majors  
PHY 360 Scientific Modeling  

Recommended Schedule  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Freshman Year - Fall</strong></td>
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<td><strong>Freshman Year - Spring</strong></td>
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<tr>
<td>BIO 101/101L</td>
<td>5</td>
<td>BIO 102/102L</td>
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<tr>
<td>BIF 101</td>
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<td>ENG 101</td>
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<td>ENG 102</td>
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<td><strong>Total</strong></td>
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<td><strong>Sophomore Year - Spring</strong></td>
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<tr>
<td>CSC 212</td>
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<tr>
<td>CHM 227</td>
<td>5</td>
<td>BIO 203</td>
<td>3</td>
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<tr>
<td>RST 101</td>
<td>3</td>
<td>PHI 101</td>
<td>3</td>
</tr>
<tr>
<td>MAT 111</td>
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<td>MAT 191</td>
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<td><strong>Total</strong></td>
<td>16</td>
<td><strong>Total</strong></td>
<td>17</td>
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<tr>
<td><strong>Junior Year - Fall</strong></td>
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<td><strong>Junior Year - Spring</strong></td>
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<tr>
<td>BIF elective</td>
<td>3-5</td>
<td>BIF elective</td>
<td>3-5</td>
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</table>


**BIF 101 Introduction to Bioinformatics**  
This course introduces students to the field of bioinformatics, including on-line computational resources, basic programming concepts, genetics, sequence analysis, phylogenetics, algorithm development and ethical issues.  

**BIF 400 Bioinformatics Capstone Course**  
This team-based course requires students to identify a problem in bioinformatics, to design and implement a solution, and to evaluate the results. Documentation, extensive software development, and oral presentation are required.  

**BIF 499 Bioinformatics Internship**  
Students are strongly encouraged to take part in a bioinformatics internship, which typically would take place in a research laboratory or biotechnology firm. Application and faculty advisor approval required. Note that this course cannot count as a bioinformatics elective.
The Biology major offers broad training in the biological sciences and balances organismal with cellular/molecular biology. This background serves as a solid preparation for:

1) future graduate level education in the biological sciences;
2) future professional education in the health-related sciences;
3) employment at the bachelors level; and
4) additional training in other disciplines that require a thorough understanding of biology, such as sports medicine and various areas of business, communications, engineering, law and social policy development.

The biology program of study combines lectures and a hands-on learning experience in both its core and elective courses. The elective courses offered within the major cover a variety of biological fields, which allow students to sample many areas of biology or to investigate more thoroughly specific areas of special interest. In addition, the opportunity to do independent research with a faculty member in the Biology Department helps develop additional skills not normally offered in undergraduate courses and enhances the total undergraduate science experience through the application of knowledge acquired in coursework.

The biology graduate may be employed in a variety of fields including research, teaching, industry, government service, sales, technical writing and environmental management. Within these fields are numerous interest areas, e.g. biotechnology, public health, forestry, agriculture, toxicology, pharmacology, wildlife and fisheries sciences, physiology, sports medicine, etc. Students interested in teaching at the secondary-school level should major in the Biology program, while those interested in the medical technology profession should major in the Clinical Laboratory program.

All biology majors are assigned advisors within the department. All majors should work closely with their advisors in discussing career expectations, choosing their biology electives and developing their total academic programs. The advisor may be changed at the student’s request. Students must maintain a 2.00 G.P.A. in their science courses to be eligible to graduate with a degree in biology.

The department also has developed programs for students interested in: Early Assurance Acceptance into the SUNY/Buffalo Medical and Dental Schools and Syracuse Medical School; Joint Degree Programs with SUNY/Buffalo Dental School, Lake Erie College of Osteopathic Medicine, the New York and Ohio Colleges of Podiatric Medicine, and the New York College of Optometry; and dual major programs in Biology-Psychology. In addition, a series of specialized courses have been developed for the non-science major that relate biological concepts and scientific methodologies to societal issues facing humankind, as a result of technological advances. These courses satisfy the Area Studies I requirements.

### Biology Curriculum

The following curriculum fulfills all requirements and prepares students well for graduate schools in the biological sciences and for schools of medicine, dentistry, veterinary medicine, podiatry, optometry and osteopathy.

1. **ENG 101, ENG 102, PHI 101, RST 101** (4 courses) (12)
2. **Area Studies:** Two courses from each of these areas: II, III, IV, V, VI, VII (12 courses) (36)
3. **Major course requirements:** (18 courses)
   - BIO 101/101L Introduction to Cellular/Subcellular Biology (5)
   - BIO 102/102L Organismal Biology (5)
   - BIO 201/201L Evolution, Ecology, and Population Biology (5)
   - BIO 203 Cellular Biochemistry (3)
   - BIO 351 Biology Seminar I (1)
   - BIO 353 Biology Seminar II (1)
   - CHM 111-112 General Chemistry (10)
   - CHM 227-228 Organic Chemistry (10)
   - PHY 201-202 General Physics (10)
   - Mathematics electives: two courses: MAT-111 and MAT 141 or PSY 201; MAT 111-112; one year of statistics (8)
   - Biology electives: six courses. Three courses and their associated laboratories must come from any three of the following four tracks: Animal Biology (BIO 314, 315, 340, 365, 366, 410, 460); Biological Diversity (BIO 305, 307, 320, 330, 335); Cellular Biology (BIO 418, 419, 425, 426, 432, 435, 445, 455); and Genetics/Molecular Biology (BIO 404, 408, 412, 450). The remaining three biology electives may come from within these areas, or from other elective courses in biology, and at least one must include a laboratory. A student enrolled in three semesters of

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1 Joint appointment with the Psychology Department.

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2 Area I is automatically fulfilled because this program is in the natural sciences. Area VII is fulfilled by the mathematics courses required in this program.
BIO 300 would fulfill this last laboratory requirement. Students should see their advisors to plan their selection. Prerequisites for all courses minimally include the completion of BIO 101/101L, BIO 102/102L, and BIO 201/201L.

4. Electives: Biology courses may be taken, but may not be taken pass/fail (4 courses) (22)

TOTAL (38 courses) (140-142)

N.B. It is particularly important that the biology major maintain the indicated required science course sequence to ensure prerequisite requirements are met for upper-level courses and to ensure that all basic requirements have been completed prior to taking standardized graduate/professional school entrance examinations (e.g. GRE, MCAT, DAT). These exams are normally taken late in spring semester of the junior year. Biology majors are required to take BIO 203 in the sophomore year, as long as they have received at least a C in CHM 227.

Recommended Schedule

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<tr>
<th>FALL</th>
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<tr>
<td>Semester</td>
<td>ENG 102</td>
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<tr>
<td>Freshman Year</td>
<td>BIO 102/102L</td>
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<td>CHM 112</td>
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<td>Mathematics</td>
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<td>Sophomore Year</td>
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<td>Junior Year</td>
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<td>PHY 201</td>
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Special Programs

Early Assurance Program with S.U.N.Y. Buffalo Medical School or Syracuse Medical School: Qualified students may apply to the State University of New York Medical School or Syracuse Medical School during their sophomore year. Those accepted will be admitted into the Medical School freshman class after their graduation from Canisius.

Early Assurance Program with S.U.N.Y. Buffalo Dental School: Qualified students may apply to the S.U.N.Y. Buffalo Dental School during their sophomore year. Those accepted will be admitted into the Dental School freshman class after their graduation from Canisius.

Joint Degree Program with S.U.N.Y. Buffalo Dental School, Lake Erie College of Osteopathic Medicine, the Ohio or New York Colleges of Podiatric Medicine or the New York College of Optometry. These are seven-year programs, of which the first three years are spent at Canisius and the last four years at either the S.U.N.Y. Dental School or the N.Y. College of Podiatric Medicine. A B.S. degree will be awarded from Canisius College after completion of the first year of dental or podiatric school. The D.D.S., D.O., D.P.M., or O.D. degree will be awarded at the end of seven years. Joint degree students must meet biology major distribution requirements. Students should see an advisor to plan course selections.

Schedule (Joint Degree Program with S.U.N.Y. Buffalo Dental School)

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<th>FALL</th>
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<td>Semester</td>
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<td>Junior Year</td>
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Other Programs

The extensive number of electives available to biology majors allows the development of dual majors with other departments. Specific programs have been developed in Biology-Psychology. The Biology-Psychology major may select those courses that are cross-listed with the Psychology
Department and listed below. The advisor is Michael Noonan of the Psychology and Biology departments. Members of the biology faculty also frequently cooperate with other departmental faculty in the presentation of interdisciplinary courses.

The Biology Department also offers five minors. Students in the Cell Molecular Biology, Environmental Biology and Neuroscience minors should see their departmental advisor to plan the course selection so that major distribution requirements can be met. Students in the Zoo Biology minor should see Dr. Noonan, the program coordinator, to plan a program that will facilitate completion of the required practica. Students in the Biology minor should see the chair of Biology for advisement.

The **Cell and Molecular Biology minor** is open to students who are majoring in biology or biochemistry. For students seeking employment at the B.S. level, a Departmental “Letter of Proficiency in Laboratory Skills” may be requested upon completion of the minor. This letter requires the passing of a laboratory skills competency examination, details of which are available from departmental advisors.

**Cell and Molecular Biology Minor**

Students select six courses from those listed below. At least four of the six courses must be taken with the laboratory, and no more than four courses and three laboratories may come from either the cell or genetics/molecular area.

Genetics/ Molecular area: BIO 404, 408, 412, 450.
TOTAL (6 courses) (22)

**Environmental Biology Minor**

The Environmental Biology minor is open to students majoring in biology. It provides a broad preparation for entry into B.S. level positions in the environmental sciences and advanced study at the graduate level.

Students must complete one course from each of the following groups:
- Diversity: BIO 305, 335, 365, 366
- Field Methods: BIO 330/330L, 320
- Toxicology/Health: BIO 360, 460

Three additional electives from the following group are also required: BIO 305, 315, 320, 330, 335, 360, 365, 366, 430, 455, 460.

**Note:** At least four of the six courses must be taken with the laboratory and the field requirement must include a laboratory.

TOTAL (6 courses) (22)

**The Neuroscience minor** may be earned by any student who completes the required courses. Prerequisites for some of the required courses may effectively limit accessibility to Biology and Biology/Psychology majors.

Students must take either BIO 425/425L or BIO 435/435L with its laboratory.

Students select 4 electives from the group listed below:
- BIO 345, 425, 435; BIO/PSY 325, 355
- BCH 405, PSY 431, BIO 300, PSY 495

TOTAL (5 courses) (16-19)

**Zoo Biology Minor**

The Zoo Biology minor may be earned by any student who completes the required courses. It is designed for those who are interested in careers associated with live animal work.

- BIO 109 Nutrition (3)
- BIO/PSY 315/315L Comparative Animal Behavior and Laboratory (4)
- BIO/PSY 316 Social Organization of Mammals and Laboratory (4)
- BIO/PSY 325 Reproductive Biopsychology (4)
- BIO 350 Zoo Biology and Laboratory (4)
- PSY 498A Practicum: Buffalo Zoo (3)
- PSY 498A Practicum: Aquarium of Niagara Falls (3)

Total (7 courses) (25)

**Biology Minor**

The Biology minor may be earned by any student who completes the required courses. Co- and/or Pre-requisites for some of the required courses may effectively limit accessibility.

Students must complete 6 courses for the minor, five of which have labs. Four of these courses are required and two are electives. Required courses include: BIO101/101L, BIO 102/102L, BIO 201/201L, BIO 203. Students must choose one elective at the 300 level and one elective at the 400 level. Both of these classes must be taken with their associated laboratories.

**COURSES: 2005 - 2007**

**BIO 101 Introduction to Cellular/Subcellular Biology**

Introduction to principles governing biological processes at the cellular/molecular level with emphasis on the role of experimentation in the scientific process. Three hours of lecture and one one-hour recitation per week.

**BIO 101L Introduction to Cellular/Subcellular Biology Laboratory**

Examination of experimental methodologies that relate to biological processes at the cellular/molecular level.

**BIO 102 Organismal Biology**

Introduction to principles governing biological processes at the organismal level in plants and animals. Function of organisms is stressed. Three hours of lecture and one one-hour recitation per week. Prerequisite: BIO 101 or permission of the chair.

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*There is also an Environmental Science Program*
BIO 102L Organismal Biology Laboratory
Examination of the structure and function of living organisms. Lab intensive. Prerequisite: Concurrent enrollment in BIO 101-102.

BIO 201 Evolution, Ecology and Population Biology
Intra- and inter-specific interactions between organisms, interactions between organisms and their environment, and mechanisms of evolutionary change and speciation. Requires recitation. Prerequisite: BIO 101-102.

BIO 201L Evolution, Ecology, Population Biology Laboratory
Investigative laboratories in evolution, population biology and ecology.

BIO 203 Cellular Biochemistry
Combination of the structure and chemical reactions of biological molecules with the biological aspects of biochemistry. Control of metabolism. Biological membranes. Replication/transcription/translation. Prerequisites: BIO 101, 102, 201; C or better in CHM 227.

BIO 351 Biology Seminar I
This replaces BIO 352 Junior Seminar. Learning and practicing of various methods of presenting scientific/experimental information. Attendance at faculty seminars required. Prerequisites: BIO 101, 102, 201, 203.

BIO 353 Biology Seminar II
This course little replaces BIO 451 Senior Seminar. Student presents seminar on research of the primary biological literature. Attendance at faculty seminars required. Prerequisite: BIO 351 Seminar I

BIOLOGY ELECTIVES FOR MAJORS

BIO 305 Microbial Ecology
The role of microorganisms in the environment. Microbial techniques, interactions among microbial populations, microbial communities, ecosystems, biogeochemical cycling, bioremediation, mineral and energy recovery. Lab optional. Prerequisites: BIO 101-102, 201; CHM 227. 2005-2006 only

BIO 305L Microbial Ecology Laboratory
Techniques that allow the measurement of microorganisms in the environment, such as: microscopy, aseptic techniques, isolation and culture of specialized groups of bacteria, water quality assessment, biodegradation of wastes and pollutants. Prerequisite: Concurrent enrollment in BIO 305.

BIO 307 Microbiology
Cell structure, genetics, biochemistry, and physiology of microorganisms, with emphasis on bacteria. Medical aspects. Food and industrial microbiology. Prerequisites: BIO 101-102, 201; CHM 227. 2006-2007 only

BIO 307L Microbiology Laboratory
Microbiology laboratory is concerned primarily with the cell structure, growth, physiology and identification of bacteria. Prerequisite: Concurrent enrollment in BIO 307.

BIO 314 Comparative Anatomy
Intensive study of selected organ systems of lower chordates and representative vertebrates. Evolutionary modifications will provide the framework for the course. The laboratory will focus on dissection and will concentrate on structure/function relationships. Prerequisites: BIO 101-102, 201. 2005-2006 only

BIO 315 (PSY 315) Comparative Animal Behavior
Behavior of a wide range of species. Similarities and contrasts allow deductions regarding mechanisms and evolution. Prerequisites: BIO 101-102, 201. 2006-2007 only

BIO 315L (PSY 315L) Comparative Animal Behavior Laboratory
Lab and field exercises illustrate concepts from class. Prerequisite: Concurrent enrollment in BIO 315.

BIO 316 (PSY 316) Social Organization of Mammals
Behavior and social structures of rodents, felines, canines, cetaceans, elephants, monkeys, apes and humans. Lab is required and includes observation of animal groupings at local zoos and aquariums. Prerequisites: BIO 101-102, 201. 2005-2006 only

BIO 317 (PSY 317) Sex, Evolution, and Behavior
Reproductive behavior of diverse animal species, including humans, from evolutionary perspective. Focus on how evolutionary accounts explain male- female differences in life style and behavior. Prerequisites: BIO 101-102, 201. 2006-2007 only

BIO 320 Field Ecology
Introduction to the flora, fauna and physical characteristics of regional ecosystems, with emphasis on field methods and application of ecological theory. Three hours of lecture and six hours of lab per week. Prerequisites: BIO 101-102, 201. 2006-2007 only

BIO 325 (PSY 325) Reproductive Biopsychology
Neuro-endocrine mechanisms underlying behavior associated with sex, pregnancy, and parental care. Equal focus on human and non-human behavior. Prerequisites: BIO 101-102, 201. 2006-2007 only

BIO 330 Marine Biology and Ecology
Introduction to marine biology and ecology with emphasis on the adaptations of organisms which allow for survival in specialized environments. Field Trip is required and in the Florida Keys. Spring Break Prerequisites: BIO 101-102, 201. 2006-2007 only

BIO 333 Histological Techniques
Theory and techniques for preparing tissue for light microscopy. Lab intensive. Prerequisites: BIO 101-102, 201.

BIO 335 Plant Biology
Critical examination of the structure, physiology, and biochemistry of vascular plants. Plant taxonomy. Emphasis on the interaction of plants with their environment. Prerequisites: BIO 101-102, 201. 2005-2006 only

BIO 335L Plant Biology Laboratory
Investigative survey of plant structure & function. Prerequisite: Concurrent enrollment in BIO 335.

BIO 340 Physiology
Function of organ systems, emphasizing neuroendocrine integration and other regulatory processes. Includes animal models, clinical experience and mechanisms of drug action. Prerequisites: BIO 101-102, 201. 2006-2007 only

BIO 340L Physiology Laboratory
Experimental study of organ systems and components, using surgical, biochemical, and hematological techniques and electronic instrumentation. Prerequisite: Concurrent enrollment in BIO 340.

BIO 345 Functional Neuroanatomy
Fundamentals of neuroanatomy and neurophysiology. Embryology, histology, and cellular structure as well as sensory and motor components and circuitry. Prerequisites: BIO 101-102, 201.

BIO 350 (PSY 350) Zoo Biology
The roles of zoos in conservation, education and research. The interaction of environment, genetic, nutritional, and psychosocial factors in the management of captive animal populations and species survival plans. Lab is required and includes laboratory exercises in enrichment and numerous experiential field trips to nearby zoos and aquariums. Prerequisites: BIO 101-102, 201. 2005-2006 only

BIO 355 (PSY 355, CSI 355) Behavioral Neuroscience
Functions of nervous /endocrine systems in mediating motivation, movement, sensation, ingestion, aggression, emotion, sleep, learning, memory, thought and behavior disorders. Prerequisite: BIO 101-102, 201. 2005-2006 only
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisite</th>
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<tbody>
<tr>
<td>BIO 360</td>
<td>Environmental Health</td>
<td>No prerequisites.</td>
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<td>Environmental effects on human health, including biological, physical</td>
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<td>and chemical hazards in water soil, and air. Course focuses on public</td>
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<td>health &amp; epidemiological study approaches. Emerging issues also discussed.</td>
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<td>BIO 365</td>
<td>Vertebrate Zoology</td>
<td>Prerequisites: BIO 101-102, 201. 2006-2007 only</td>
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<tr>
<td>BIO 366</td>
<td>Ornithology</td>
<td>Prerequisites: BIO 101-102, 201. 2005-2006 only</td>
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<tr>
<td>BIO 400</td>
<td>Independent Study</td>
<td>Arrangements made prior to registration. Prerequisite: Written permission of</td>
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<td>Independent study under the direction of a faculty member. Arrangements</td>
<td>tutorial faculty member.</td>
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<tr>
<td>BIO 401</td>
<td>Independent Research</td>
<td>Independent laboratory research in biology conducted under the supervision of</td>
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<td></td>
<td>Independent Research</td>
<td>a faculty member. Arrangements made prior to registration. Prerequisite:</td>
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<tr>
<td>BIO 404</td>
<td>Genetics</td>
<td>Written permission of faculty member.</td>
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<tr>
<td>BIO 404L</td>
<td>Genetics Laboratory</td>
<td>Principles of Mendelian, molecular, population, and quantitative genetics,</td>
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<td>Principles of Mendelian and molecular genetics as demonstrated by</td>
<td>with emphasis on inherited diseases. Formerly BIO 304. Prerequisite:</td>
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<td>experiments with Drosophila and microorganisms. Prerequisite:</td>
<td>BCH 301, 301L or BIO 203. 2005-2006 only</td>
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<tr>
<td>BIO 405</td>
<td>Medical Genetics</td>
<td>Modes of transmission of human characteristics and diseases in families</td>
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<td>BIO 408</td>
<td>Biotechnology, Theory in Practice</td>
<td>and populations; the molecular basis of human disease; the genetics of</td>
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<td>Introduction to the theory and experiments that are the foundation</td>
<td>cancer and the screening, diagnosis and therapy of specific genetic diseases.</td>
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<td></td>
<td>of biotechnology through lecture and laboratory. Topics include: genetic</td>
<td>Formerly BIO 318. Prerequisite: BCH 301, 301L or BIO 203. 2006-2007 only</td>
</tr>
<tr>
<td>BIO 410</td>
<td>Histology and Histophysiology</td>
<td>A systematic study of structure and function of cells and tissues as viewed</td>
</tr>
<tr>
<td></td>
<td>A systematic study of structure and function of cells and tissues as viewed</td>
<td>by light and electron microscopes. Lab employs Kodachrome and tissue slides.</td>
</tr>
<tr>
<td></td>
<td>by light and electron microscopes.</td>
<td>Three hours of lecture and one three-hour lab per week. Prerequisite:</td>
</tr>
<tr>
<td>BIO 412</td>
<td>Evolution &amp; Development</td>
<td>Evolution of development, e.g. how structures arise during development of the</td>
</tr>
<tr>
<td>BIO 412L</td>
<td>Evolution &amp; Development Laboratory</td>
<td>Embryo and the evolution of genetic pathways that control the process of</td>
</tr>
<tr>
<td>BIO 414</td>
<td>Enzymes and Proteins</td>
<td>Investigative lab focuses on projects designed to characterize molecular</td>
</tr>
<tr>
<td></td>
<td>The biochemical characteristics of proteins and enzymes will be examined</td>
<td>changes during development in a variety of organisms. Prerequisite:</td>
</tr>
<tr>
<td></td>
<td>Using a modular approach to target important structural proteins and</td>
<td>BIO 301, 301L or BIO 203. 2006-2007 only</td>
</tr>
<tr>
<td>BIO 419</td>
<td>Cell Biology</td>
<td>Recent developments in cytology, including genetic information storage and</td>
</tr>
<tr>
<td>BIO 419L</td>
<td>Endocrinology Laboratory</td>
<td>retrieval, protein processing and secretion, motility, chemotaxis, energy</td>
</tr>
<tr>
<td>BIO 419L</td>
<td>Cell Biology Laboratory</td>
<td>sources and the cell in its environment. Prerequisite: BCH 301, 301L or</td>
</tr>
<tr>
<td>BIO 425</td>
<td>Cellular Neurobiology</td>
<td>Experimental laboratories researching current topics in endocrinology at the</td>
</tr>
<tr>
<td>BIO 425L</td>
<td>Cellular Neurobiology Laboratory</td>
<td>molecular, cellular and organismal levels. Prerequisite: Concurrent</td>
</tr>
<tr>
<td>BIO 426</td>
<td>Immunochemistry</td>
<td>Experimental laboratories researching current topics in cell and molecular</td>
</tr>
<tr>
<td>BIO 430</td>
<td>Medicinal Botany</td>
<td>The importance of diverse plant life to human health; the biosynthesis,</td>
</tr>
<tr>
<td>BIO 430L</td>
<td>Medicinal Botany</td>
<td>ecological significance and pharmacology of drugs derived from plants.</td>
</tr>
<tr>
<td>BIO 432</td>
<td>Developmental Biology</td>
<td>The cellular and molecular phenomena that result in the development of a</td>
</tr>
<tr>
<td>BIO 435</td>
<td>Developmental Neurobiology</td>
<td>Examination of cellular and molecular aspects of animal development using</td>
</tr>
<tr>
<td>BIO 435L</td>
<td>Developmental Neurobiology Laboratory</td>
<td>classical model organisms. Prerequisite: concurrent enrollment in BIO 432.</td>
</tr>
<tr>
<td>BIO 440</td>
<td>Medical Biochemistry</td>
<td>Biochemistry of disease. Includes examination of pathways and regulatory</td>
</tr>
<tr>
<td>BIO 445</td>
<td>Cellular Imaging</td>
<td>Use of microscopy and digital imaging technology to study living eukaryotic</td>
</tr>
<tr>
<td>BIO 450</td>
<td>Molecular Biology</td>
<td>Current approaches to recombinant DNA technology and</td>
</tr>
</tbody>
</table>
molecular genetic research. Both conceptual and laboratory approaches will be pursued. Topics: cancer development, cell growth, chemical evolution. **Prerequisite:** BCH 301, 301L or BIO 203. 2006-2007 only

**BIO 450L Molecular Biology Laboratory**

Exposure to electrophoresis, chromatography, bacterial transformation, restriction enzyme analysis, N13 viral propagation, in vitro packaging of viral DNA - techniques used in recombinant DNA research. **Prerequisite:** Concurrent enrollment in BIO 450.

**BIO 455 Environmental Physiology**

Introduction to the underlying physiological mechanisms involved in organismal adaptation to various environmental conditions (e.g. temperature, salinity, dissolved oxygen, pressure). **Prerequisite:** BCH 301, 301L or BIO 203.

**BIO 455L Environmental Physiology Laboratory**

An investigative laboratory examining organismal adaptation to various environmental parameters. **Prerequisite:** Concurrent enrollment in BIO 455.

**BIO 460 Environmental Toxicology**

Major environmental toxicants examined from viewpoints of bioavailability, bioaccumulation, biodegradation, toxic properties, interference in metabolism. Emphasis on effects of contaminants on functioning of animals. **Prerequisite:** BCH 301, 301L or BIO 203. 2005-2006 only

**BIO 460L Environmental Toxicology Laboratory**

Experimental laboratory researching a current topic in environmental toxicology. **Prerequisite:** Concurrent enrollment in BIO 460.

**AREA I COURSES (for non-science majors only)**

**BIO 109 Nutrition**

How food intake influences us as individuals and as components of society; what food is; how we get and use food; processes regulating its use. (AS I)

**BIO 116 Disease: Myth and Reality**

Exploration of causation, treatment and prevention of illness. Objective: to increase awareness and understanding of health and disease. (AS I)

**BIO 117 Plants and Human Affairs**

Various ways in which plants affect human existence. Topics include food products, building (utilitarian) applications, medicinal and poisonous plants, propagation and improvement, roles in ecology. (AS I)

**BIO 120 Biology in the News**

The biological concepts underlying science articles appearing in the current news media, examining these concepts in the context of relevant economic, social and cultural issues. Topics will vary. (AS I)

**BIO 131 Biotechnology and Society**

Relationship between biology, technology and society. Awareness of the impact of biotechnology on our society. (AS I)

**BIO 132 Genes and People**

How human characteristics are transmitted and affect future generations. Ethical and legal ramifications of genetic advances. (AS I)

**BIO 135 Environmental Biology**

Introduction to the complex interactions that occur between humans and their environments, and how other life forms are impacted by these activities. (AS I)

**BIO 137 Special Topics in Natural History**

Ecological and evolutionary concepts are explored using specific examples from a particular ecosystem, specifically by focusing on the organisms of an ecosystem and their interactions with each other and the environment. (ASI)

**BIO 321 (WST 321) Biology of Women**

Biological principles applied to the human female. Structure, function, growth and development throughout the life cycle. Includes relevant social, psychological and medical information. (AS I)

**BIO 448 (RST 448) Bio-Moral Problems**

Considers a number of problem areas, such as genetic intervention, medical experimentation, behavior control, organ transplants and resource allocation, and death and dying. (AS VI)

**BIO 448L Bio-Moral Problems Lab**

Model and experiments will be used to enhance the student's understanding of the concepts taught in BIO 137. Three hours of lecture and one three-hour lab per week. **Prerequisite:** Concurrent enrollment in BIO 448.

**OTHER COURSES (for health-related professionals and Physical Education majors; may not be used as biology electives)**

**BIO 107-108 Human Anatomy and Physiology**

Specialized introductory course in human biology for those students requiring a rigorous and thorough understanding of the structure and function of the human body. Three hours of lecture and one three-hour lab per week. **Prerequisite:** Exercise Science, Physical Education, and Medical Technology majors only.

**BIO 107-108L Human Anatomy and Physiology Lab**

Model and experiments will be used to enhance the student's understanding of the concepts taught in BIO 107-108. Meets once a week for three hours. **Prerequisite:** Concurrent enrollment in BIO 107-108.
The Department of Chemistry and Biochemistry has three program tracks: the Professional Track in Chemistry, the Health Professions Track in Chemistry, and the Interdisciplinary Program Track in Biochemistry. The Health Professions Track and the Chemistry Professional Track both lead to the degree of bachelor of science in chemistry. The Chemistry Professional Track is approved by the American Chemical Society (ACS) and leads to the chemistry degree certified by the ACS. The Biochemistry Track leads to the degree of bachelor of science in biochemistry. All three tracks are excellent preparation for students interested in ultimately pursuing advanced degrees such as an M.S., Ph.D., PharmD., D.D.S., M.D., D.O., or an M.D./Ph.D. There is a strong emphasis on laboratory experience in this program. Modern laboratories with a variety of sophisticated equipment provide the majors with the experience that is necessary to be competitive in today’s job market.

The Biochemistry Program Track is an interdisciplinary program with upper level requirements in both chemistry and biology. This program provides excellent preparation for careers in medical research, the newly emerging fields in biotechnology and bioinformatics, as well as the traditional fields of pharmacy, pharmacology, medicinal chemistry, nutrition and other life-science disciplines.

The Health Professions Track is for students who intend to pursue careers in clinical medicine, dentistry and other related health professions.

All three tracks can be completed with a business minor. The department also offers a chemistry minor.

The chemistry graduate may enter a variety of fields, including research, teaching, commercial chemical production and development, technical writing, sales, patent law and civil service. A major in chemistry has long been recognized as an excellent preparation for medical school. It may also serve as a background for graduate study in chemical engineering. Students with a business minor are very well prepared for graduate studies in the field of business and administration, and for sales and management positions in industry.

The department also provides basic and elective courses in chemistry for students in the physical and biological sciences, medical technology, pre-engineering, pre-environmental sciences and pre-pharmacy. Courses designed for non-science majors communicate fundamental insights into the nature of the physical world, the development of scientific ideas and the impact of science and technology on humankind.

Special Programs

Early Assurance Program with SUNY Buffalo Medical School or Syracuse Medical School: Qualified students may apply to the State University of New York Medical School or Syracuse Medical School during their sophomore year. Those accepted will be admitted into Medical School freshman class after their graduation from Canisius.

Early Assurance Program with SUNY Buffalo Dental School: QUALIFIED STUDENTS MAY APPLY TO THE STATE UNIVERSITY OF NEW YORK DENTAL SCHOOL DURING THEIR SOPHOMORE YEAR. THOSE ACCEPTED WILL BE ADMITTED INTO THE DENTAL SCHOOL FRESHMAN CLASS AFTER THEIR GRADUATION FROM CANISIUS.

Pre-Pharmacy: For students who are planning to apply to pharmacy school after their sophomore year. The pre-pharmacy students will be listed as biochemistry majors, since the first two years of the biochemistry program track satisfy most pharmacy school admission requirements. A student also has the option of completing a 4-year degree in any major before starting pharmacy school, as long as the required courses are taken. Students applying to most pharmacy schools must take the Pharmacy College Admission Test (PCAT). Information about this test is available from the Psychological Corporation, 555 Academic Court, San Antonio, Texas 78204-2498; Phone: 1-800-622-3231.

Other Programs

Following their sophomore year, and sometimes earlier, chemistry and biochemistry majors may do summer work in the department in research or applied projects. Stipends for qualified students are often available through work-study, research grants, or industrial support. Summer work in industrial laboratories is also available, and our close relationship with local industries aids in job placement after graduation.

Membership in the Canisius College student-affiliate chapter of the American Chemical Society is open to all chemistry students.
Chemistry Curriculum
This curriculum has two tracks. The Professional Track is for students who wish to enter the field of chemistry as a profession. It is an excellent preparation for doctoral programs in chemistry. The Health Profession Track is for students who intend to pursue careers in medicine, dentistry and related health professions. Both tracks can also be completed with a business minor.

Chemistry Professional Track
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas:
   II, III, IV, V, VI, VII, VIII 1 (12 courses) (36)
3. Major course requirements (20 courses) (85)
   CHM 111-112 + lab General Chemistry (10)
   CHM 227-228 + lab Organic Chemistry (10)
   CHM 230 + lab Analytical Chemistry (5)
   CHM 301-302 + lab Physical Chemistry I and II (10)
   CHM 334 + lab Spectrometric Analysis (4)
   CHM 430 + lab Analytical Chemistry II (4)
   CHM 444 Advanced Inorganic Chemistry (5)
   CHM 381-480-481 Chemistry and Biochemistry Seminar (3)
   BCH 301 Introduction to Biochemistry (4)
   BIO 101 + lab Introduction to Cellular/Subcellular Biology (5)
   MAT 111-112 Calculus I & II (8)
   PHY 201-202 + lab General Physics (10)
   Chemistry electives: three courses (CHM 450 research in chemistry) can be taken instead of one advanced elective.
   CHM 450 is strongly recommended for A.C.S. certification) 2 (9)
4. Electives: MAT 211 is recommended. (2 courses) (6)
TOTAL (38 courses) (139)

Chemistry Health Professions Track
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas:
   II, III, IV, V, VI, VII, VIII 1 (12 courses) (36)
3. Major course requirements (21 courses) (87-88)
   CHM 111-112 + lab General Chemistry (10)
   CHM 227-228 + lab Organic Chemistry (10)
   CHM 230 + lab Analytical Chemistry I (5)
   CHM 301 Physical Chemistry I (4)
   CHM 381-480-481 Chemistry and Biochemistry Seminar (3)
   BCH 301 Introduction to Biochemistry (4)
   BIO 101 + lab Introduction to Cellular/Subcellular Biology (5)
   BIO 102 + lab Organismal Biology (5)
   MAT 111 Calculus I (4)
   MAT 141 Inferential Statistics and Computers for Science (4)
   PHY 201-202 + lab General Physics (10)
   Science electives: 7 courses, including at least 4 courses in Chemistry/Biochemistry and at least 2 laboratory courses.
   (CHM 450 Research in Chemistry) can be taken instead of one advanced elective. (23)
4. Electives (1 course) (3)
TOTAL (38 courses) (139-139)

Chemistry Professional Track
with Business Minor
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas:
   III, IV, V, VI, VII, and ECO101 and ECO102 to fulfill
AS II requirement 1 (12 courses) (36)
3. Major course requirements (19 courses) (82)
   CHM 111-112 + lab General Chemistry (10)
   CHM 227-228 + lab Organic Chemistry (10)
   CHM 230 + lab Analytical Chemistry I (5)
   CHM 301-302 + lab Physical Chemistry I and II (10)
   CHM 334 + lab Spectrometric Analysis (4)
   CHM 430 + lab Analytical Chemistry II (4)
   CHM 444 Advanced Inorganic Chemistry (5)
   CHM 381-480-481 Chemistry and Biochemistry Seminar (3)
   BCH 301 Introduction to Biochemistry (4)
   BIO 101 + lab Introduction to Cellular/Subcellular Biology (5)
   MAT 111-112 Calculus I & II (8)
   PHY 201-202 + lab General Physics (10)
   Chemistry electives: two courses (CHM 450 Research in Chemistry) can be taken instead of one advanced elective.
   CHM 450 is strongly recommended for A.C.S. certification) 2 (9)
4. Business Requirements
   Five courses in addition to ECO 101-102 (15-16)
   MGT 101 Introduction to Management (3)
   MKT 201 Principles of Marketing (3)
   ACC 201 Financial Accounting (3)
   FIN 301 Introduction to Finance (3)
   MAT 141 or ECO 255 Inferential or Business Statistics (4,3)
TOTAL (40 courses) (145-146)

Chemistry Health Professions Track
with Business Minor
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas:
   III, IV, V, VI, VII, and ECO101 and ECO102 to fulfill
AS II requirement 1 (12 courses) (36)
3. Major course requirements (19 courses) (82)
   CHM 111-112 + lab General Chemistry (10)
   CHM 227-228 + lab Organic Chemistry (10)
   CHM 230 + lab Analytical Chemistry I (5)
   CHM 301 Physical Chemistry I (4)
   CHM 381-480-481 Chemistry and Biochemistry Seminar (3)
   BCH 301 Introduction to Biochemistry (4)
   BIO 101 + lab Introduction to Cellular/Subcellular Biology (5)
   BIO 102 + lab Organismal Biology (5)
   MAT 111 Calculus I (4)
   MAT 141 or ECO 255 Inferential or Business Statistics (4,3)
   PHY 201-202 + lab General Physics (10)
   Science electives: 5 courses, including at least 4 courses
in Chemistry/Biochemistry and at least 2 laboratory courses. (CHM 450 - Research in Chemistry) can be taken instead of one advanced elective.)  

4. Business Requirements 4 courses in addition to ECO 101-102  
MGT 101 Introduction to Management  
MAT 201 Principles of Marketing  
ACC 201 Financial Accounting  
FALL (Chemistry Health Professions Track)  
Recommended Schedule  
TOTAL (140-142 courses)  

Recommended Schedule (Chemistry Professional Track)  
FALL  
Freshman Year  
ENG 101 3  
CHM 111/111L 5  
MAT 111 4  
BIO 101/101L 5  
Total 17  
Sophomore Year  
RST 101 3  
CHM 227/227L 5  
PHY 201/201L 5  
CHM 230/230L 5  
Total 18  
Junior Year  
CHM 301/301L 5  
CHM 334/334L 4  
AS or CHM 444 3  
AS 3  
Total 18  
Senior Year  
CHM 444 or AS 3  
CHM 480 1  
BCH 301 4  
Chemistry elective 3  
AS or Chemistry elective or AS 3  
AS 3  
Total 17  
TOTAL 139  

Recommended Schedule (Chemistry Health Professions Track)  
FALL  
Freshman Year  
ENG 101 3  
CHM 111/111L 5  
MAT 111 4  
BIO 101/101L 5  
Total 17  
Sophomore Year  
RST 101 3  
CHM 227/227L 5  
PHY 201/201L 5  
AS 3  
Total 16  
TOTAL 145-146  

Recommended Schedule (Chemistry Health Professions Track with Business Minor)  
FALL  
Freshman Year  
ENG 101 3  
CHM 111/111L 5  
MAT 111 4  
BIO 101/101L 5  
Total 17  
TOTAL 138-139  

Recommended Schedule (Chemistry Professional Track with Business Minor)  
FALL  
Freshman Year  
ENG 101 3  
CHM 111/111L 5  
MAT 111 4  
BIO 101/101L 5  
Total 17  
TOTAL 17-18  

Recommended Schedule (Chemistry Health Professions Track with Business Minor)  
FALL  
Freshman Year  
ENG 101 3  
CHM 111/111L 5  
MAT 111 4  
BIO 101/101L 5  
Total 17  
TOTAL 19-20  

Recommended Schedule (Chemistry Health Professions Track with Business Minor)  
FALL  
Freshman Year  
ENG 101 3  
CHM 111/111L 5  
MAT 111 4  
BIO 101/101L 5  
Total 17  
TOTAL 19
Recommended Schedule (Chemistry Health Professions Track with Business Minor) - continued

Sophomore Year

<table>
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<tr>
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<th>Credits</th>
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<tr>
<td>RST 101</td>
<td>3</td>
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<tr>
<td>CHM 227/227L</td>
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</tr>
<tr>
<td>PHY 201/201L</td>
<td>5</td>
</tr>
<tr>
<td>ECO 101 (AS II)</td>
<td>3</td>
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<tr>
<td>AS</td>
<td>3</td>
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<tr>
<td>Total</td>
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Junior Year

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<tr>
<td>BCH 301</td>
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<tr>
<td>CHM 301</td>
<td>4</td>
</tr>
<tr>
<td>Science elective + Lab</td>
<td>4 or 5</td>
</tr>
<tr>
<td>ACC 201</td>
<td>3</td>
</tr>
<tr>
<td>MGT 201</td>
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<tr>
<td>AS</td>
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Senior Year

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<tbody>
<tr>
<td>CHM 230/230L</td>
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<tr>
<td>Science elective or AS</td>
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<tr>
<td>CHM 480</td>
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</tr>
<tr>
<td>FIN 301</td>
<td>3</td>
</tr>
<tr>
<td>AS</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

TOTAL: 140-142

Biochemistry Curriculum

Thomas D. Corso, Director.

This program provides an interdisciplinary approach to the sciences of biology and chemistry. Successful completion of this program leads to the bachelor of science degree in biochemistry, which is an appropriate preparation for a variety of areas. Most biochemistry majors go on to pursue advanced degrees. The following list shows all of the various degrees that former students have pursued: MD (medicine), DO (osteopathic medicine), PharmD (pharmacy), DDS (dentistry), PhD (in fields such as biochemistry, medicinal chemistry and forensics), MBA (business) and JD (law).

There are three tracks in biochemistry: the biochemistry professional track, the biochemistry business track, and the 2-year pre-pharmacy biochemistry track for students transferring to pharmacy school after two years. The courses that are recommended for biochemistry major in the first two years match closely the courses required by majority of pharmacy schools for students transferring from Canisius College after two years. Therefore, pre-pharmacy students who decide to continue their education at Canisius after sophomore year, are on track for the biochemistry major.

Biochemistry Professional Track

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: II, III, IV, V, VI, VIII (12 courses) (36)
3. Major course requirements: (20 courses) (87-89)
   (Note: Labs are required for all classes that have labs, except science elective and CHM 301)
   BIO 101/101L Introduction to Cellular/Subcellular Biology (5)
   BIO 102/102L Organismal Biology (5)
   CHM 111-112/L General Chemistry (10)
   CHM 227-228/L Organic Chemistry (10)
   MAT 111-112 Calculus I & II (8)
   PHY 201-202/L General Physics or PHY 223-224/L General Physics for Physical Science Majors (10)
   BCH 301-302/L Biochemistry (10)
   CHM380-480-481 Chemistry and Biochemistry Seminar (3)
   Biochemistry Elective: one course (BCH 405, BIO 440 or CHM 448) (4)
   Molecular or Genetics Elective: one course (BIO 304, 450, 408, 432 or 435) (4)
   Cellular Biology Elective: one course (BIO 418, 419, 425, 426 or 455) (4)
   CHM301 Physical Chemistry I (4)
   Physical Chemistry/Instrumentation: two of the following three: CHM302/302L, CHM430/430L, CHM334/334L (8 or 9)
   Science elective: one class at or above the following levels (BIO 303, BCH 303, CHM 303, PHY 225, MAT 211, CSC 110) or one of the following (CHM 230, CHM 232, CSC 107, MAT 141 or PSY 201). (3 or 4)
4. Free electives: two courses (6)
   TOTAL: (38 courses) (141-143)

Biochemistry Track with Business Minor

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: III, IV, V, VI, VIII, and ECO 101 and 102 to fulfill Area II1 (12 courses) (36)
3. Major course requirements: (19 courses) (82-85)
   (Note: Labs are required for all classes that have labs, except science elective and CHM 301)
   BIO 101/101L Introduction to Cellular/Subcellular Biology (5)
   BIO 102/102L Organismal Biology (5)
   CHM 111-112/L (10)
   CHM 227-228/L Organic Chemistry (10)
   MAT 111 Calculus I (4)
   MAT 141 or ECO 255 Inferential or Business Statistics (4 or 3)
   PHY 201-202/L General Physics or PHY 223-224 General Physics for Physical Science Majors (10)
   BCH 301-302/L Biochemistry (10)
   CHM 380-480-481 Chemistry and Biochemistry Seminar (3)
   Biochemistry Elective: one course (BCH 405, BIO 440 or CHM 448) (3)
   Molecular, Genetics or Cell Biology Elective: one course (BIO 304, 450, 408, 432, 435, 418, 419, 425, 426 or 455) (4)
   CHM301 Physical Chemistry I (4)
   Physical Chemistry/Instrumentation: two of the following three: CHM302/302L, CHM430/430L, CHM334/334L (8 or 9)
   Science elective: one class at or above the following levels (BIO 303, BCH 303, CHM 303, PHY 225, MAT 211, CSC 110) or one of the following (CHM 230, CHM 232, CSC 107, MAT 141 or PSY 201). (3 or 4)

1 Area I is automatically fulfilled because this program is in the natural sciences. Area VII is excluded because of the mathematics courses required in this program.
Biochemistry Pre-Pharmacy Track

YEAR 1

<table>
<thead>
<tr>
<th>Course</th>
<th># of Semesters</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101-102 English I &amp; II</td>
<td>2 (6)</td>
</tr>
<tr>
<td>BIO 101-102 (with labs) Biology I &amp; II</td>
<td>2 (10)</td>
</tr>
<tr>
<td>CHM 111-111 (with labs) General Chemistry I &amp; II</td>
<td>2 (10)</td>
</tr>
<tr>
<td>MAT 111-112 Calculus I &amp; II*</td>
<td>2 (8)</td>
</tr>
</tbody>
</table>

YEAR 2

<table>
<thead>
<tr>
<th>Course</th>
<th># of Semesters</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 201-202 (with labs) General Physics I &amp; II*</td>
<td>2 (10)</td>
</tr>
<tr>
<td>CHM 227-227 (with labs) Organic Chemistry</td>
<td>2 (10)</td>
</tr>
<tr>
<td>MAT 141, PSY 201 or ECO 255 Statistics</td>
<td>1 (3-4)</td>
</tr>
<tr>
<td>ECO 102 (preferred) or ECO 101 Economics</td>
<td>1 (3)</td>
</tr>
<tr>
<td>PSY 101 (preferred) or SOC 110 Sociology</td>
<td>1 (3)</td>
</tr>
<tr>
<td>HIS 123, HIS 124, PSC 320, American History</td>
<td>1 (3)</td>
</tr>
<tr>
<td>Two of the following: Art course** (ASIII)</td>
<td></td>
</tr>
<tr>
<td>World Civilization I** (HIS111) Two Pre-Pharmacy</td>
<td></td>
</tr>
<tr>
<td>World Civilization II** (HIS108) Electives*</td>
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<tr>
<td>Computer course (CSCI110)</td>
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</tr>
<tr>
<td>Nutrition (BIO109)</td>
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</tr>
<tr>
<td>Microbiology (BIO307)***</td>
<td>2 (6)</td>
</tr>
</tbody>
</table>

(Note: The specific requirements for each pharmacy school should be checked for which courses should be taken and may include courses other than those listed here.)

* The Lake Erie College of Osteopathic Medicine Pharmacy School requires 5 "general education" electives but does not specifically require Calculus II, Physics II or American History.

** Three elective courses are required for graduation from UB Pharmacy School, and can be taken at Canisius College before transfer or at UB Pharmacy School after transfer. If taken at Canisius College, the courses need to be pre-approved by UB Pharmacy School. It is recommended that the student take only two of these courses before transfer to the UB Pharmacy School. If a student wishes to take all three before transfer, he/she may choose to take the third course during a summer semester. Students that complete a 4-year degree at Canisius College before starting at UB are exempt from these three requirements.

*** The University of Cincinnati requires microbiology.
Recommended Schedule (2-Year Biochemistry
Pre-Pharmacy Track)

FALL  
Freshman Year
ENG 101  3  CHM 111 + Lab  5  MAT 111  4  BIO 101 + Lab  5  Total  17
CHM 111  3  ENG 102  3  CHM 112 + Lab  5  MAT 112  4  BIO 102 + Lab  5  Total  17
Sophomore Year
CHM 227 + Lab  5  CHM 228 + Lab  5  PSY 101 or SOC 110  3  ECO 102  3  Total  19-20
PHY 201 + Lab  5  PHY 202 + Lab  5  MAT 141 or PSY 201  3 or 4  HIS 123 or HIS 124  3
Pre-Pharmacy Elective*  3  Pre-Pharmacy Elective*  3  Total  19-20
TOTAL  137

*Check Biochemistry Pre-pharmacy Track requirements.

Chemistry Minor

Students majoring in various disciplines such as biology, mathematics, physics, bioinformatics, computer science, psychology and business can benefit from pursuing a minor in chemistry. The chemistry minor requires a student to complete the following sequence of courses:

Two semesters of General Chemistry with laboratory:  
CHM111/111L and CHM112/112L (10 cr)

Two semesters of Organic Chemistry with laboratory:  
CHM227/227L and CHM228/228L (10 cr)

One semester of Analytical Chemistry with laboratory:  
CHM230/230L or CHM334/334L or CHM430/430L (4 or 5 cr)

One semester of Physical Chemistry:  
CHM301 or CHM444 (3 or 4 cr)

Chemistry Elective:  
one CHM 300 or 400 level course (3 or 4 cr)

TOTAL  137


CHEMISTRY CURRICULUM

CHM 103 Drugs and the Mind  3  The role of chemistry, specifically the chemistry of carbon, in life processes and the treatment of disease. (AS I)

CHM 104 Energy, Environment, and Society  3  Team learning is used to teach important concepts in science with an emphasis on chemistry. These concepts are then used to analyze important science/technology-based contemporary issues using the case study method.

CHM 106 The Chemistry of Life  3  Emphasizes physical chemical principles. Includes atomic structure and periodicity, chemical bonding, kinetics, equilibrium, electrochemistry and periodic chemical properties. Laboratory includes quantitative and qualitative analysis. Three lectures, one laboratory and one recitation per week. Prerequisite for CHM112: CHM 111 with a minimum grade of C-

CHM 107 Chemistry by the Case  3  Survey course in organic chemistry. All the important functional groups and the reactions which interrelate them. Oxidation-reduction and acid-base reactions, as they apply to organic compounds, are central. Prerequisites: CHM 111-112.


CHM 201 Bio-organic Chemistry  5  Three lectures, one laboratory and one recitation per week. Prerequisites: CHM 111-112.

CHM 230 Analytical Chemistry I  5  Principles and methodology of modern analytical chemistry presented with particular emphasis on chromatographic, spectrophotometric, and electroanalytical techniques. Three lectures, one laboratory and one recitation per week. Prerequisites: CHM 111-112.

CHM 232 Analytical Environmental Chemistry  4  First-level analytical course. Environmental applications. Sampling techniques and statistical analysis of data. Soil chemistry, aquatic chemistry, and atmospheric chemistry. Trace analysis with electroanalytical, liquid and gas chromatography, atomic absorption spectroscopy and ion selective electrodes. Prerequisites: CHM 111-112.

CHM 301-302 Classical Physical Chemistry  10  Principles of thermodynamics with applications to chemical and phase equilibria, electrochemistry and surface chemistry. Chemical kinetics, kinetic theory of gases, solid state chemistry and spectroscopy. Three lectures, one laboratory and one recitation per week. Prerequisites: CHM 111-112, MAT 111, PHY 201-202 or 223-224, or equivalent courses.

CHM 303 Classical Physical Chemistry  5  Spectrometric methods for the elucidation of chemical structures. Includes nuclear magnetic resonance, infrared, ultraviolet and mass spectrometry. Emphasis on organic compounds. Three lectures and one laboratory per week. Prerequisites: CHM 227-228.

CHM 338 Intermediate Organic Chemistry  3  Important basic concepts in organic chemistry are reviewed at a higher level than is possible in an introductory course. New concepts are presented in the area of reaction mechanisms, physical organic chemistry, and in the use of retrosynthetic analysis to plan multi-step organic syntheses. Prerequisites: CHM 227-228.

CHM 360 Scientific Modeling  3  An introduction to the use of computer models to develop understanding in a scientific context. This course is intended for students in any scientific discipline, and focuses on the principles...
involved in using and interpreting computer models. The course is divided into three main sections: dynamical modeling, structural modeling and computer based statistical methods. Problems are drawn from biology, chemistry, geology and physics. 

Prerequisite: MAT111 and a one-year introductory science sequence (in computer science, chemistry, biology or physics).

CHM 381-480-481 Chemistry and Biochemistry Seminar 1 each Student-faculty seminar for majors. To be taken for three semesters. Prerequisite: Junior standing.

CHM 400 Inorganic Chemical Synthesis 3
Lecture and laboratory designed to illustrate some of the important synthetic and physical techniques used in modern inorganic and organometallic chemistry. Two lectures and one laboratory per week. Prerequisites: CHM 227-228, CHM 444.

CHM 401 Modern Physical Chemistry 3
An introduction to quantum chemistry and statistical thermodynamics. Applications to atoms, molecules, chemical equilibria and chemical kinetics. Prerequisites: CHM 301-302, PHY 201-202 or 223-224, MAT 111-112, & 211, or equivalent courses.

CHM 430 Analytical Chemistry II 4
Advanced instrumental methods of analysis including optical emission, spectroscopy, gas chromatography and various electrochemical techniques. Three lectures and one laboratory per week. Prerequisites: CHM 111-112 or approval of instructor.

CHM 444 Advanced Inorganic Chemistry 3
Periodic classification of the elements, electronic configuration of atoms, nature of chemical bonding, stereochemistry, coordination compounds and other aspects of modern inorganic chemistry. Prerequisites: CHM 227-228 and CHM 301.

CHM 446 Advanced Organic Chemistry 3
A study of organic reaction mechanisms using physical organic methods to provide experimental data. This is a second-level organic chemistry course. Prerequisites: CHM 227-228.

CHM 448 Biological Organic Chemistry 3
Structure, reactions, stereochemistry of important biological derivatives, e.g. carbohydrates, amino acids, lipids, proteins, nucleic acids, steroids. Prerequisites: CHM 227-228.

CHM 450 Research in Chemistry 3
Independent research under the direction of a member of the chemistry faculty. Research and consultation times to be arranged after approval of department chair.

CHM 461 Polymer Chemistry 3
Survey of the physical and organic principles of polymer chemistry, with special emphasis on industrial applications. Prerequisites: CHM 227-228.

CHM 498-499 Independent Study 3
Independent study under the direction of the chemistry staff. Prerequisite: Permission of the department chair.

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**BIOCHEMISTRY CURRICULUM**

**BCH 300 Research in Biochemistry** 1
Prerequisite: Permission of instructor

**BCH 301 Introduction to Biochemistry** 4
Structure and chemical reactions of biological molecules. Cellular metabolism. Transmission of genetic information from DNA to RNA to protein; recombinant DNA technology. Prerequisites: BIO 101-102; CHM 227; CHM 228 with a minimum grade of C-

**BCH 301L Introduction to Biochemistry Lab** 1
One four-hour lab per week. Prerequisite: BCH 301 or concurrent registration in BCH 301.

**BCH 302 Cellular Biochemistry** 4

**BCH 302L Cellular Biochemistry Lab** 1
One four-hour lab per week. Prerequisites: BCH 301 and concurrent registration in BCH 302.

**BCH 303 Biochemistry Laboratory** 3
Techniques of isolation and characterization of macromolecules. Two lab periods and one lecture per week. Prerequisite: BCH 301.

**BCH 401 Directed Readings: Tutorial** 1 - 4
Prerequisite: Permission of instructor.

**BCH 402 Directed Research: Tutorial** 1 - 4
Prerequisite: Permission of instructor.

**BCH 405 Neurochemistry and Pharmacology** 3
The biochemistry and pharmacology of the brain and nervous system. Survey of neurotransmitters and second messengers. Mechanisms of neuroactive drugs, toxins and diseases. Special topics on mood, learning and memory. Prerequisite: BIO 203 or BCH 301.

**BCH 352-451-452 Biochemistry Seminar** 1, 1, 1
Classics, the study of the civilizations of the ancient Greeks and Romans, has always been an integral part of liberal arts education in general and of Jesuit education in particular. Classical art, literature, mythology, religion, philosophy, history, archaeology, and the Greek and Latin languages are some of the major components of the discipline.

The intrinsic interest, timeless value, and immense influence of its subject matter, together with the precision of thought and clarity of expression fostered through the study of Greek and Latin, have earned international respect for classics. The acceptance rate of classics students into a variety of graduate programs and into schools of law and medicine consistently ranks very high. Many professions also prize the combination of intelligence and discipline identified with classics. These considerations make classics courses worthwhile, popular electives and distinguish the minor in classics as an ideal complement to any academic major.

Students interested in exploring classics may do so in several ways:

a. All students may choose classics courses as electives or to satisfy requirements of the core curriculum, e.g., Area III: courses dealing with classical literature, drama, and myth in English translation; Area IV: courses in Greek and Roman history; Area V: a course in Greek thought; Area VI: a course in Greek and Roman religious experience; Area VIII: courses in the Greek and Latin languages from elementary to advanced levels.

b. Minors. The department offers two minor programs:
   1) a departmental minor requiring courses in classical language, history and literature;
   2) an interdepartmental minor combining courses from the departments of Classics, Art History, History, Philosophy, Political Science and Religious Studies. Both minors require the completion of six courses and allow the student some choice in course selection depending on interest and educational objectives.

Students interested in either of the Classics minors should consult with the department chair for further details.

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**Classics Departmental Minor**

Classical language: two semesters of Latin or Greek (CLL OR CLG) (6)

CLS 103 Greek History to 323 B.C. or
CLS 104 Roman History: Origins to Late Antiquity (3)

CLS 205 Mirror of the Past: Greece or
CLS 206 Mirror of the Past: Rome (3)

Classics electives: two upper-level (200 or above) courses (6)

**TOTAL (6 courses)** (18)

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**Classics Interdepartmental Minor**

Classical language: two semesters of Latin or Greek (CLL OR CLG) (6)

Classics elective: one course (CLS 205, 206, 207, 208, 210, 213, 214, 215, 308, 309, 311, 312, 313, 314) (3)

Interdepartmental electives: three courses (FAH 101, 210, 213; HIS 107; PHI 350; PSC 110; RST 215, 230, 251, 308, 309, 321, 405) (9)

**TOTAL (6 courses)** (18)

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**COURSES: 2005 - 2007**

CLS 103 (HIS 103) Greek History to 323 B.C. 3
Social, political, and intellectual history of the Greeks from the end of the Bronze Age to the Hellenistic period. (AS IV, ICD)

CLS 104 (HIS 104) Roman History: Origins to Late Antiquity 3
Social, political, and intellectual history of Rome from the foundation of the city to Late Antiquity. (AS IV, ICD)

CLS 205 Mirror of the Past: Greece 3
Fundamental social, political, moral, religious and intellectual aspects of the human condition as reflected in a variety of Greek writers. (AS III, ICD)

CLS 206 Mirror of the Past: Rome 3
Fundamental social, political, moral, religious and intellectual aspects of the human condition as reflected in a variety of Roman writers. (AS III, ICD)

CLS 207 Mythology and Literature 3
Major classical myths: origin, content and interpretation. Modern approaches to mythology. Influence upon literature. (AS III, ICD)

CLS 208 Epic Heroes 3
Portrayal of heroes in Gilgamesh, Homer's Iliad and Odyssey, Apollonius' Argonautica and Virgil's Aeneid. Influence of ancient epic heroes on literature, art and film from antiquity to the present. (AS III, ICD) 2005-2006 only

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1 Joint appointment with the History Department.
CLS 210 (FAH 210) Ancient Egyptian and Near Eastern Art 3
Introduction to the formal and cultural analysis and interpretation of the painting, sculpture and architecture of ancient Egypt and the Near East. (AS III, ICD) 2005-2006 only

CLS 213 (FAH 213) Ancient Art: Greece and Rome 3
A look at the temples, tombs, pottery, painting and sculpture of the Greek and Roman worlds — what these objects meant to their creators and how they have influenced the things we see around us and our feelings about beauty and art. (AS III, ICD) 2006-2007 only

CLS 214 (WST 214) Classical Drama 3
Greek and Roman tragedy and comedy, Aeschylus, Sophocles, Euripides, Aristophanes, Menander, Plautus, Terence and Seneca. Origins, cultural setting, staging, performance and influence. (AS III) 2005-2006 only

CLS 218 (HIS/RST 218) Religion of the World Religions A 3

CLS 219 (WST 219) Classical Drama 3
Greek and Roman tragedy and comedy, Aeschylus, Sophocles, Euripides, Aristophanes, Menander, Plautus, Terence and Seneca. Origins, cultural setting, staging, performance and influence. (AS III) 2005-2006 only

CLS 308 (HIS/RST 308) Pagans and Christians 3
Religious thought and action from the 3rd through 8th centuries A.D. The idea of the holy; manifestations of the sacred; body, soul, cosmos; Christianity and classical culture; Neoplatonism. (AS VI) Prerequisite: RST 101. 2005-2006 only

CLS 309 (RST 309) Greek and Roman Religion 3
Religious thought and action in ancient Greece and Rome from Homer through the 2nd century A.D. Polytheism, anthropomorphism, ritual, cult and sacrifice. (AS VI) Prerequisite: RST 101. 2006-2007 only

CLS 312 (HIS 312) The Greek Enlightenment 3
Greek thought from Homer to Plato. Lyric poets, Hippocratic texts, Presocratics and Sophists, Athenian tragedy, Thucydides, Aristophanes and Plato. Impact of literacy on Greek thought.

CLS 311 (HIS 311) Alexander the Great 3
Philip II and the rise of Macedon. Alexander's personality, his conquests, and their social, political and intellectual consequences. Hellenistic culture. 2006-2007 only

CLS 314 (HIS 314) Decline and Fall of the Roman Empire 3
Imperial crisis and recovery of the third century, Constantine and Christianity, barbarian invasions, social, political, and intellectual developments in the Byzantine East and Latin West. 2005-2006 only

CLG 101-102 Elementary Greek 6
Intensive introduction to grammar, syntax and vocabulary of classical Greek. Selected readings in second semester. (AS VIII)

CLG 201-202 Intermediate Greek 6
Readings in selected Greek authors, genres, or themes. (AS VIII)

CLG 301-302 Readings in Greek 6
Readings in selected Greek authors, genres, or themes.

CLG 303-304 Readings in Greek 6
Readings in selected Greek authors, genres, or themes.

CLL 101-102 Elementary Latin 6
Intensive introduction to grammar, syntax and vocabulary of classical Latin. Selected readings in second semester. (AS VIII)

CLL 201-202 Intermediate Latin 6
Readings in selected Latin authors, genres, or themes. (AS VIII)

CLL 301-302 Readings in Latin 6
Readings in selected Latin authors, genres, or themes.

CLL 303-304 Readings in Latin 6
Readings in selected Latin authors, genres, or themes.
Clinical Laboratory Science is the profession in which human blood and body fluids are analyzed for purposes of diagnosis, treatment and prevention of disease. Clinical laboratory professionals are an integral part of the health care team providing information that is used in over 70 percent of all patient diagnoses. This program provides an interdisciplinary background in all the natural sciences with heavy emphasis on biology and chemistry. The student is campus-based during the first three years and is hospital-based for the senior year, rotating among such areas as clinical chemistry, microbiology, immunology, serology, blood-bank, hematology, flow cytometry and parasitology. The training will directly prepare the student for a job in a hospital clinical laboratory. In addition, there are numerous related areas that a medical technologist (clinical laboratory scientist) is uniquely prepared to enter such fields as laboratory information system sales, installation, training, repair and modification; clinical product development, lab industries; transplant technologist; flow cytometrist; specialist for the food, pharmaceutical, cosmetics or clinical reference laboratory technologist; quality control specialist for the food, pharmaceutical, cosmetics or clinical lab industries; transplant technologist; flow cytometrist; clinical laboratory science educator; and technical division supervisor.

The program is a rigorous one, with very modest flexibility. The course offerings over and above those required by the American Society of Clinical Pathologists (ASCP) emphasize the increasing importance in clinical laboratory science of instrumentation, automation and computers. During the student’s junior year, application is made to approved hospital schools of medical technology. The burden of acceptance into a hospital program rests with the student.

Clinical Laboratory Science Curriculum:

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: II, III, IV, VIII. One course from each of these areas: V, VI (10 courses) (30)
3. Major course requirements: (26 courses)
   BIO 101-101L Introduction to Cellular/Subcellular Biology (5)
   BIO 102-102L Organismal Biology (5)
   BIO 203 Cellular Biochemistry (3)
   BIO 307 General Microbiology (4)
   BIO 426 Immunochemistry (3)
   CHM 111-112 General Chemistry (10)
   CHM 227-228 Organic Chemistry (10)
   CSC 110 Introduction to Computing (3)
   MAT 111 Calculus I (4)
   MAT 141 Inferential Statistics and Computers for Science (4)
   MDT 200 Instrumentation (3)
   MDT 280-281 Seminar: Sophomore Level (2)
   MDT 380-381 Seminar: Junior Level (2)
   Science electives: two courses to be arranged with advisor (6-8)
   MDT 400-401 Hospital Rotation (30)
   TOTAL (39 courses) (136-138)

Recommended Schedule

FALL                   SPRING
Freshman Year          
ENG 101               ENG 102
BIO 101-101L          BIO 102-102L
CHM 111               CHM 112
AS                     MAT 141
Total                  Total
16                     20

Sophomore Year         
RST 101               PHI 101
CHM 227               CHM 228
CSC 110 or MDT 200    MDT 281
MAT 111               AS
MDT 280               AS
AS                     AS
Total                  Total
19                     18

Junior Year            
MDT 380               MDT 381
BIO 203               BIO 426
Science elective 3 or 4
Science elective 3 or 4
AS                     AS
AS                     AS
Total                  Total
16 or 17               17 or 18

Senior Year            
MDT 400               MDT 401
Total                  Total
15                     15
TOTAL                  136-138


MDT 200 Instrumentation 3
Survey of the theory and practice of instrumental analysis as it is applied to the clinical laboratory.

MDT 280-281 Seminar: Sophomore Level 1 credit per semester
Introduction to Clinical Science Laboratory profession from variety of perspectives: history, present state of health-care delivery, job opportunities, organization of hospital laboratory. Hospital-laboratory tour.

MDT 299 Independent Study 1
MDT 380-381 Seminar: Junior Level 1 credit per semester
Advanced discussions of Clinical Science Laboratory theory and practice designed as preparation for senior-year hospital rotation. Tour of hospital laboratory.

MDT 399 Independent Study 1
MDT 400-401 Hospital Rotation 15 credits per semester

1 Area I is automatically fulfilled because this program is in the natural sciences. Area VII is fulfilled by the required mathematics courses in this program.
The Communication Studies major is grounded firmly in the liberal arts tradition. The Communication Studies curriculum reflects, therefore, an equal interest in what is communicated within and between cultures and in how communication takes place in intrapersonal, interpersonal, organizational and mass contexts. The department’s curriculum addresses three major facets of the academic study of communication: theory, criticism and production.

The program has two concurrent objectives: (1) To examine the dynamic nature of modern communication processes and technologies by emphasizing the theory, structure, function, value systems and effects of society’s communication institutions; and (2) To offer students a variety of opportunities to acquire professional knowledge and production competencies relevant to a diversity of careers in many communication-related fields.

Recognizing the need to prepare students for productive lives in a changing world, the Department aims at educating its graduates to welcome change. Instead of focusing on preparation for specialized jobs that exist today but may not be viable in the future, the Communication Studies faculty provides the foundation on which to build meaningful roles in the contemporary world.

Admission
Prospective Communication Studies majors must have a cumulative G.P.A. of at least 2.00, including a minimum grade of C- in all communication courses taken to date. The performance of all majors is subject to review relative to their continuation in the program, using such criteria as academic record, demonstration of appropriate communication skills, co-curricular activity, interdisciplinary engagement and community involvement. Communication Studies majors select an academic sequence within the Communication major. They need at least 36 hours of communication courses (or 33 hours for dual majors) but are limited to a maximum of 54 hours in communication.

Communication Studies students who are dual majors and successfully complete 3 or more credit hours in Independent Study or Internships (COM 488, COM 498 or COM 499) are required to complete 30 hours of in-class credit in order to complete the Communication Studies major (i.e., not 33 or 36 in-class hours).

A minimum overall average of 2.00 in all communication coursework is required of all Communication Studies majors in order to be certified for graduation.

Communication Studies Curriculum
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, III, IV, V, VI, VII, VIII (Area II is automatically fulfilled because this program is in the Social Sciences) (42)
3. Major course requirements: (12 courses)
   - COM 201 Oral Communication (3)
   - COM 202 Communication Theory (3)
   - COM 203 Writing for the Public Media (3)
   - COM 204 Interpersonal Communication (3)
   - COM 205 Mass Communication and Society (3)
   - COM 206 Introduction to Research Methods (3)
   Note: At least one of the above courses must be taken each semester until all six are completed with a minimum grade of C- in each. Students receiving a grade of D or F must repeat the course. All six must be taken by all majors.
   - Communication electives: six courses. ¹ Communication electives must be chosen from within the three departmental sequences: Advertising/Public Relations, Interpersonal/Organizational Communication, and Journalism/Media Studies (18)
4. Electives (10 courses) (30)
TOTAL (40 courses) (120)

Recommended Schedule

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<th>FALL</th>
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<tr>
<td><strong>Freshman Year</strong></td>
<td><strong>Sophomore Year</strong></td>
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<td>ENG 101</td>
<td>PHI 101</td>
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<tr>
<th><strong>Junior Year</strong></th>
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<td>COM 201 or 202 or 203</td>
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¹ Dual majors need only five courses as communication electives (15 credit hours).
Recommended Schedule (continued)

Senior Year
Communication elective 3  Communication elective 3
AS 3 AS 3
Elective 3 Elective 3
Elective 3 Elective 3
Elective 3 Elective 3
Total 15 Total 15
TOTAL 120

Digital Media Arts Degree Program
The Communication Studies Department offers a second undergraduate degree in Digital Media Arts. For further details, please refer to the subsequent section.

Additional Information
The Communication Studies major at Canisius College is based on coursework tailored toward three main areas: Advertising/Public Relations, Interpersonal/Organizational Communication and Journalism/Media Studies.

Facilities
Four computer labs, digital video editing stations, an audio/music production studio and a television studio/control room are available for student use in Lyons Hall.

The Lyons Hall third-floor Mac Lab, in Lyons 312, features 26 Macintosh G5 iMac Flat Panel computers with DVD-RW drives, laser printer, and 1 Power Macintosh G4 tower with scanner and multimedia card reader. Software available includes Adobe Illustrator CS2 & Indesign, Imageready, Pagemill, Photoshop CS, Apple iMovie, iTunes, Appleworks 6, Realplayer, Macromedia Director, Dreamweaver, Flash, Fireworks, Microsoft Office 2004, Quark Express, Protocols LE, After Effects 6.5, Cinema 4D. A scanner and a laser printer flank the room. A touch screen in an instructor's bunker controls a VCR, DVD player and an Elmo documentation presentation system. Ports for plug-and-go setups, such as laptops and laserdisc players, are built into the bunker.

A web and imaging lab, in Lyons 325, provides 3 Macintosh G5 iMac Flat Panel computers with DVD-RW drives, a Gateway Profile running Windows XP, 2 scanners, 3 drawing tablets, a large format color inkjet printer and a color laser printer. Software is identical to the software in LY 312.

The digital imaging lab, which is maintained by the Media Center in Lyons 413, houses: 3-Final Cut Pro non-linear editing stations (MAC); 3 i-movie non-linear editing stations (MAC); 3 iMac computers for still imaging (MAC); 1 scanner workstation (MAC); 1 Laser printer; 1 audio editing workstation featuring Digital Performer, GarageBand & ProTools LE (MAC) and an audio production studio.

An additional lab, Lyons 122, features 14 dual processor G4 Macs, a laser printer and a scanner. Software includes Maya and Final Cut Pro. This computer lab is primarily used for advanced Digital Media Arts electives.

A design production lab, in Lyons 316, features mounting resources for presentations of printed digital work.

In the Media Center on the fourth floor of Lyons Hall, a 26' x 30' television studio features a hard cyclorama, lighting grid with dimmer control and three digital studio video cameras.

The control room has custom-built consoles to house the digital video switcher with special effects, a 16-channel audio mixing board, teleprompter, DAT audio recorder, character generator and an intercom/FB system. The digital video-mastering format is DVCAM with BetaCam SP, S-VHS and Hi-8 video transports. Four equipment racks and consoles house the audio/video distribution, including patch panels and routers.

The studio also has the capability to send video to the campus cable RF video system. The college's Media Center provides the TV studio's operational support.

Across from the TV studio, a screening room provides comfortable tiered seating, a video and DVD projector, as well as a professional sound system.

Students can also sign out equipment (various digital cameras, camcorders, etc.) from the Media Center on the 4th floor of Lyons Hall. Check out http://www.canisius.edu/mediacenter/equipment.asp for a complete list of available resources.

The department has co-curricular arrangements with the weekly student newspaper (The Griffin), the campus television club (CCTV), the student-operated radio station (WCCG) and campus Little Theatre. Student chapters of the American Advertising Federation, the Public Relations Student Society of America and the Association for Women in Communications, Inc. provide networking opportunities with local and national professionals.

Internships awarding up to a maximum of 12 credit hours may be earned by qualified Communication Studies majors at approved locations in Buffalo or other cities. The internships are individually arranged, require department approval, and are available only to junior or senior candidates with a cumulative G.P.A. of at least 2.50 and a Communication average of at least 2.70. Internships are taken on a Pass/Fail basis and are counted towards free elective credit.

Opportunity for independent study (three credits) is available for qualified upperclass students by arrangement with the Communication Studies chair and faculty supervisor.

Dual majors with Communication Studies are available with the permission and guidance of both chairs. Communication Studies dual major sequences allow several different choices; among those most frequently involved are digital media arts, political science, psychology, English, history, management/marketing, and modern languages. The
department participates in programs with Women’s Studies and Fine Arts, and also offers courses towards a minor in Child, Family, and Community Studies. Photography courses cross-listed with Fine Arts are limited to six credits in the Communication Studies major.

Each Communication Studies and dual major is assigned a department faculty advisor for the purpose of planning an individual program that will satisfy the department’s requirements and the student’s personal goals. Course selections develop from communication major requirements, prerequisites, recommended sequences and communication electives.


Note: Additional Communication Studies courses may be offered each semester in both the day and evening. Students should consult the department.

COM 101 Communication in Contemporary Society 3
Survey of current issues of human communication with emphasis on concerns of young adults. Topics include communication problems such as communication in difficult situations (e.g., apologizing, embarrassment, assertiveness), divorce communication, and death and dying. (AS II)
See FAS 114.

COM 114 (FAS 114) Introduction to Still Photography 3
See FAS 114.

COM 201 Oral Communication 3
Study and practice of concepts, processes and techniques of effective verbal communication in face-to-face, small group and public-address contexts. Speeches required.

COM 202 Communication Theory 3
Fundamental forms of communication theory and perspectives are explored and related to particular lines of research in interpersonal, group, organizational, public and mass mediated communication contexts.

COM 203 Writing for the Public Media 3
Intensive writing assignments employing message-design principles provide opportunities to prepare news, features, press releases, advertising copy and opinion pieces.

COM 204 Interpersonal Communication 3
Study of theoretical and pragmatic aspects of interpersonal communication in numerous contexts to enhance self-awareness and effective self-expression.

COM 205 Mass Communication and Society 3
Survey of mass communication processes and the mass media in terms of development, structures, functions, effects and interactive relationships with American society. (AS II)

COM 206 Introduction to Research Methods 3
The fundamentals of the scientific method, especially, the basics of research methods, designs and hypothesis testing.

COM 211 (DMA 201) Intro to Digital Media 3
See DMA 201.

COM 212 (DMA 202) Digital Media Culture 3
See DMA 202.

COM 213 (DMA 203) Digital Design Concepts 3
See DMA 203.

COM 215 (DMA 205) Digital Graphics 3
See DMA 205.

COM 216 (DMA 206) Interactive Multimedia 3
See DMA 206.

COM 226 (FAS 216) Intermediate Photography 3
See FAS 216.

COM 302 Small Group Communication 3
Communication variables in small groups involving task, maintenance, leadership, conformity, shift-to-risk and development. Some emphasis on skill development.

COM 304 (WST 376) Family Communication 3
Survey of family communication research problems and theories of interaction. Special emphasis on relating to family members and applying course material to improve family communication.

COM 310 Print Journalism (Newswriting) 3
What news is, how it is gathered, interviewing. Writing with accuracy, clarity, objectivity, precision and proper grammar.

COM 311 Principles of Advertising 3
The fundamentals of advertising, including history and development, advertising media, marketing, audiences, campaign objectives, budget, creativity and agency functions.

COM 312 Public Relations: Principles and Practices 3
Historical antecedents and contemporary practice of public relations, the nature of day-to-day tasks and communication responsibilities of practitioners in a variety of professional settings, issues in the practice and PR concepts and theories.

COM 315 Advertising and the Creative Process 3
Study of techniques, tools and theories for generating innovative concepts and ideas. Emphasize application to advertising context.

COM 316 Public Relations Campaigns 3
PR campaigns are concerted efforts of an organization to build socially responsible relationships by achieving research-based goals through the application of communication strategies and the measurement of outcomes. Students produce an actual campaign.

Prerequisite: COM 312.

COM 318 Organizational Communication 3
Communication principles and practices, including communicator style variables, communication flow and superior-subordinate communication.

COM 319 Training and Development 3
Methods for assessing training needs within organizations, and designing, implementing and assessing outcomes of training. Emphasis on principles of effective training and development of training competencies. Students develop training skills.

Prerequisite: COM 201.

COM 320 Advertising Writing 3
Covers a variety of ways of developing advertising copy (copywriting) and creative concepts for persuasive advertising pieces. Includes workshop writing for print, television and radio commercials.

COM 322 Feature/Magazine Writing 3
Profiles and other human-interest features developed for newspapers, magazines, broadcast. Free-lance writing introduced.

COM 325 Media Literacy 3
Focuses on theoretical approaches and practical skills enabling students to analyze, think critically and produce effective mediated messages in a variety of formats and specialized content areas.

Service Learning Option

COM 326 (PSC 326, DMA 204) Digital Media Law/Ethics 3
Introduces a wide range of legal issues surrounding cyberspace, including: the First Amendment, copyright, libel, hate speech, morality/obscenity, privacy, commercial speech and national security.

COM 327 (WST 375) Gender Differences in Human Communication 3
The reasons why men and women communicate differently and how gender influences communication in personal relationships and professional environments.

COM 328 Scriptwriting 3
Students develop an original idea into a teleplay or screenplay. Exploration of character, story, dramatic structure, dialogue and the business of screenwriting. DMA elective.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 329</td>
<td>(GRN 329, ANT 329) Cross-Cultural Communication and Aging</td>
<td>3</td>
</tr>
<tr>
<td>COM 330</td>
<td>Public Relations Writing</td>
<td>3</td>
</tr>
<tr>
<td>COM 331</td>
<td>Theoretical perspectives on various forms of public relations writing and the applications of each. Writing and editing skills. Students produce portfolio of PR writing tools and techniques. Prerequisite: COM 312.</td>
<td>3</td>
</tr>
<tr>
<td>COM 332</td>
<td>Communication and Personality</td>
<td>3</td>
</tr>
<tr>
<td>COM 333</td>
<td>Sports Journalism</td>
<td>3</td>
</tr>
<tr>
<td>COM 334</td>
<td>Producing for Television</td>
<td>3</td>
</tr>
<tr>
<td>COM 335</td>
<td>Constructive Uses of Humor</td>
<td>3</td>
</tr>
<tr>
<td>COM 336</td>
<td>First-hand exposure and instruction on writing for TV, print, and the Internet, broadcast anchoring and covering games. This course puts the student in front of the camera, computer, microphone and face-to-face with sports journalists and athletes.</td>
<td>3</td>
</tr>
<tr>
<td>COM 337</td>
<td>Introduction to the state of the art in on-line multimedia publishing. Students learn to work collaboratively in teams to publish well designed World Wide Web documents that communicate effectively. DMA elective.</td>
<td>3</td>
</tr>
<tr>
<td>COM 338</td>
<td>Producing for Television</td>
<td>3</td>
</tr>
<tr>
<td>COM 339</td>
<td>Seminar in Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 340</td>
<td>Advertising Account/Media Strategy</td>
<td>3</td>
</tr>
<tr>
<td>COM 341</td>
<td>Topics include client/business strategy, marketing communication planning, media plans, media mix (TV, print, Internet, etc.), media sales and the most efficient, effective way to plan and place an ad campaign.</td>
<td>3</td>
</tr>
<tr>
<td>COM 342</td>
<td>Introducing to Television Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 343</td>
<td>Studio techniques, lighting, sound recording, set design, electronic graphics and editing, production of live and edited programs in studio. DMA elective.</td>
<td>3</td>
</tr>
<tr>
<td>COM 344</td>
<td>Advertising Account/Media Strategy</td>
<td>3</td>
</tr>
<tr>
<td>COM 345</td>
<td>Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>COM 346</td>
<td>This course examines classic and contemporary research, theories and concepts in persuasion and social influence. Learn to become a more persuasive person and identify and resist persuasion attempts from others.</td>
<td>3</td>
</tr>
<tr>
<td>COM 347</td>
<td>Introduction to Television Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 348</td>
<td>Studio techniques, lighting, sound recording, set design, electronic graphics and editing, production of live and edited programs in studio. DMA elective.</td>
<td>3</td>
</tr>
<tr>
<td>COM 349</td>
<td>Digital Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 350</td>
<td>Broadcast Journalism (News)</td>
<td>3</td>
</tr>
<tr>
<td>COM 351</td>
<td>Learn what it is like to step inside the daily inner-workings of a TV newsroom. Act as the assignment editor, reporter, producer, director. Encounter ethical dilemmas. Learn the principles and skills to make resourceful broadcast decisions.</td>
<td>3</td>
</tr>
<tr>
<td>COM 352</td>
<td>Television Features</td>
<td>3</td>
</tr>
<tr>
<td>COM 353</td>
<td>Design, write and produce special feature reports, multiple-part series, investigative stories and mini-documentaries. Emphasis on field work.</td>
<td>3</td>
</tr>
<tr>
<td>COM 354</td>
<td>(FAH 374) Film History</td>
<td>3</td>
</tr>
<tr>
<td>COM 355</td>
<td>The development of film-making and cinema art from 1895 through World War II. Students study, view, and discuss classic silent and sound pictures from Hollywood and abroad. DMA elective.</td>
<td>3</td>
</tr>
<tr>
<td>COM 356</td>
<td>Film Classics</td>
<td>3</td>
</tr>
<tr>
<td>COM 357</td>
<td>The development of cinema worldwide from World War II through the 1970s. Study, view and discuss films representative of major directors, genres and national cinema movements. DMA elective.</td>
<td>3</td>
</tr>
<tr>
<td>COM 358</td>
<td>Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>COM 359</td>
<td>Designed for both Journalism and Advertising/ Public Relations concentrations, this Macintosh workshop helps develop skills using the most popular word processing, graphics and page layout programs for electronic publishing. DMA elective.</td>
<td>3</td>
</tr>
<tr>
<td>COM 360</td>
<td>Television and Children</td>
<td>3</td>
</tr>
<tr>
<td>COM 361</td>
<td>Learn about the role of television in children's lives. Course explores children's television use, the development and content of children's television programs (both commercial and educational), television and the family, and children's advertising.</td>
<td>3</td>
</tr>
<tr>
<td>COM 362</td>
<td>Digital Video Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 363</td>
<td>See DMA 387. Prerequisite: COM 211.</td>
<td>3</td>
</tr>
<tr>
<td>COM 364</td>
<td>Advanced Web Design</td>
<td>3</td>
</tr>
<tr>
<td>COM 365</td>
<td>This course will focus on Flash and advanced coding languages such as XHTML, Javascript, CSS2, and PHP. Standards and accessibility will be addressed. Prerequisite: COM 342 or DMA 207</td>
<td>3</td>
</tr>
<tr>
<td>COM 366</td>
<td>Advertising Campaigns</td>
<td>3</td>
</tr>
<tr>
<td>COM 367</td>
<td>Designed as a capstone course for advertising students, this course examines current and classic advertising campaigns for technique and effectiveness. Students also have the chance to develop their own advertising campaigns. Prerequisite: COM 311 or permission of instructor.</td>
<td>3</td>
</tr>
<tr>
<td>COM 368</td>
<td>Public Relations Case Studies</td>
<td>3</td>
</tr>
<tr>
<td>COM 369</td>
<td>Students will become familiar with a process for public relations problem-solving through analysis of a variety of PR case studies in major areas of the field, including employee relations, consumer relations, media relations and crisis communications.</td>
<td>3</td>
</tr>
<tr>
<td>COM 370</td>
<td>Issues in Advertising</td>
<td>3</td>
</tr>
<tr>
<td>COM 371</td>
<td>In this seminar, students explore a range of contemporary issues surrounding the advertising industry including consumerism, effects, ethics, racism and sexism, and trends. Prerequisite: COM 311 or permission of instructor.</td>
<td>3</td>
</tr>
<tr>
<td>COM 372</td>
<td>Interviewing</td>
<td>3</td>
</tr>
<tr>
<td>COM 373</td>
<td>Research on supportive/defensive communication, nonverbal communication, communication apprehension, and disclosure in professional, business, and bargaining/negotiation situations. Interviewing techniques.</td>
<td>3</td>
</tr>
<tr>
<td>COM 374</td>
<td>Advanced Television (Studio) Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 375</td>
<td>Advanced techniques in lighting, editing, set design, special effects and photography, production of short-form projects for professional distribution. DMA elective. Prerequisite: COM 361</td>
<td>3</td>
</tr>
<tr>
<td>COM 376</td>
<td>Digital Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 377</td>
<td>See DMA 487.</td>
<td>3</td>
</tr>
<tr>
<td>COM 378</td>
<td>Internship I Seminar</td>
<td></td>
</tr>
<tr>
<td>COM 379</td>
<td>Student experientially learns communication functions in compatibly matched professional setting, locally or out-of-town. Faculty and on-site supervision. Seminar required. Pass/fail. May be repeated as COM 498; 12-credit limit for COM 488/498 combined. Prerequisite: Open to junior and senior majors with G.P.A. of at least 2.50 and Communication Studies average of 2.70 and approved by department faculty. Applications on Communication Studies Department website.</td>
<td>3-12</td>
</tr>
<tr>
<td>COM 380</td>
<td>Internship 2 Seminar</td>
<td></td>
</tr>
<tr>
<td>COM 381</td>
<td>Sequel to COM 488 for students taking a second internship. Each student is limited to a combined total of 12 credit hours for COM 488 and 498. Prerequisite: Same as for COM 488.</td>
<td>3-9</td>
</tr>
<tr>
<td>COM 382</td>
<td>Independent Study</td>
<td></td>
</tr>
<tr>
<td>COM 383</td>
<td>Student conducts original project or self-designed course of study under the tutelage of Communication Studies faculty member. Prerequisite: Open to junior and senior majors in good standing with consent of instructor and chair.</td>
<td>3</td>
</tr>
</tbody>
</table>
The Computer Science Department offers two programs that prepare students for graduate study and/or entry into the industrial portion of the field. Each program gives the student a solid foundation for a current career, as well as the ability to acquire new skills and update old ones as dictated by rapidly changing technology. Course work includes programming, information organization, distributed computing, computing theory, software engineering, intelligent systems and up-to-date electives. Professionalism, ethical computing and decision-making, writing and communication skills are essential to all computer scientists and are emphasized throughout the curriculum. Computer science is interdisciplinary by nature, and study in other fields through the core curriculum enhances the education of majors.

The bachelor of science major is designed for students with a scientific interest who intend to continue on to graduate school or enter the profession as research or systems programmers. This program of study places a greater emphasis on mathematics and physics.

The bachelor of arts major is designed to satisfy the needs of individuals who are interested in combining their studies with course work in another area. Students can take concentrations in any other major. Students can use the concentration and free electives to complete any of the minors from other academic departments. Students in this major are also well qualified for graduate school or professional careers.

The department also offers minors and courses in computing for non-majors.

Admission
Prospective Computer Science majors and minors must have a cumulative G.P.A. of at least 2.0, at least a C in CSC 110, CSC 111 and CSC 111L, as well as any other computer science courses taken to date. Students wishing to become a computer science major or minor should file a Computer Science Declaration application with the Computer Science Department (form available in WTC 207). On acceptance into the major or minor, students will be assigned an advisor in the department.

The performance of all majors and minors is subject to review relative to their continuation in the program. Academic record (at least a 2.0 overall G.P.A.), computer science course record (at least a 2.0 G.P.A. in all computer science courses and labs) and the demonstration of necessary computer skills will be the basis of the evaluation. Students not performing up to the necessary standards will be advised of the problem and corrective action will then be recommended by the department chair.

Computer Science Curriculum

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)

2. Area Studies: Two courses from each of these areas:
   a. B.S. majors: II, III, IV, V, VI, VIII (12 courses) (36)
   b. B.A. majors: I, II, III, IV, V, VI, VIII (14 courses) (42)

3. Major course requirements: (19 courses)
   a. Required of all majors:
      CSC 110 Introduction to Computing (3)
      CSC 111 Introduction to Programming (4)
      CSC 212 Data Structures (4)
      CSC 213 Large Scale Programming (4)
      CSC 253 Computer Hardware (3)
      CSC 281 Automata and Algorithms (3)
      CSC 310 Information Organization and Processing (4)
      CSC 330 Distributed Computing (4)
      CSC 351 Comparative Programming Languages (4)
      CSC 360 Intelligent Systems (4)
      CSC 395 Software Engineering (4)
      CSC 391-491 Computer Science Seminar (2)
      Computer Science electives: two courses (8)
      MAT 191 Introduction to Discrete Mathematics (4)
   b. Required of B.S. majors:
      MAT 111-112 Calculus I & II (8)
      Two semesters of a lab science (BIO 101-102, CHM 111-112, or PHY 223-224 (10)
      MAT 141 Inferential Statistics and Computers for Science (4)
   c. Required of B.A. majors:
      MAT 111 Calculus I (4)
      Four-course concentration outside Computer Science (see department for approved concentrations) (12)

4. Electives: Science electives and MAT 219 are recommended for B.S. majors. All majors are encouraged to take courses to strengthen verbal and written communication skills. In particular, COM 201, PHI 300, and PHI 340 are recommended.
   a. B.S. majors (2 courses) (6)
   b. B.A. majors (0 courses) (0)

TOTAL: B.S. majors (37 courses) (131)
B.A. majors (37 courses) (125)

1 Area VII is automatically fulfilled because this program is in the mathematics area. For B.S. majors, Area I is fulfilled by the required science courses.
### Recommended Schedule (Bachelor of Science)

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman Year</td>
<td></td>
</tr>
<tr>
<td>ENG 101</td>
<td>ENG 102</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CSC 110</td>
<td>CSC 111</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>MAT 111</td>
<td>MAT 112</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>AS</td>
<td>MAT 191 or MAT 141</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
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<tr>
<td>AS</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
<tr>
<td>Sophomore Year</td>
<td></td>
</tr>
<tr>
<td>RST 101</td>
<td>PHI 101</td>
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<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CSC 212</td>
<td>CSC 213</td>
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<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CSC 253</td>
<td>CSC 281</td>
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<tr>
<td>3</td>
<td>3</td>
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<tr>
<td>AS or BIO 101 or CHM 111</td>
<td>PHY 223 or BIO 102 or CHM 112</td>
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<tr>
<td>3 or 5</td>
<td>5</td>
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<tr>
<td>AS</td>
<td>3</td>
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<tr>
<td>Total</td>
<td>16 or 18</td>
</tr>
<tr>
<td>Junior Year</td>
<td></td>
</tr>
<tr>
<td>CSC 310 or CSC 395</td>
<td>CSC 330 or CSC 351</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>AS or PHY 224</td>
<td>CSC 391</td>
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<tr>
<td>3 or 5</td>
<td>1</td>
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<tr>
<td>AS</td>
<td>CSC 360 or AS</td>
</tr>
<tr>
<td>3</td>
<td>3-4</td>
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<tr>
<td>AS</td>
<td>MAT 141 or MAT 191</td>
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<tr>
<td>3</td>
<td>4</td>
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<tr>
<td>Total</td>
<td>16</td>
</tr>
<tr>
<td>Senior Year</td>
<td></td>
</tr>
<tr>
<td>CSC 395 or CSC 310</td>
<td>CSC 351 or CSC 330</td>
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<tr>
<td>4</td>
<td>4</td>
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<tr>
<td>CSC 490¹</td>
<td>CSC elective</td>
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<tr>
<td>1</td>
<td>4</td>
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<tr>
<td>CSC elective</td>
<td>AS or CSC 360</td>
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<tr>
<td>4</td>
<td>3-4</td>
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<tr>
<td>AS</td>
<td>AS</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
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<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

### Computer Science Minor

- CSC 110 Introduction to Computing (3)
- CSC 111 Introduction to Programming (4)
- CSC 212 Data Structures (4)
- Computer Science electives: two courses, at least one at the 300 or 400 level, chosen in consultation with a departmental advisor (7-8)
- TOTAL (5 courses) (18-19)

### Computer Theory Minor

- CSC 110 Introduction to Computing (3)
- CSC 111 Introduction to Programming (4)
- MAT 191 Introduction to Discrete Mathematics (4)
- CSC 212 Data Structures (4)
- CSC 281 Automata and Algorithms (3)
- TOTAL (5 courses) (18)

### Computing Facilities

Information Technology Services operates college-wide computer systems including a number of Windows and Macintosh laboratories. The Computer Science department facilities include a lab with computer graphics workstations and a second lab with personal computers. There is another multiprocessor system that is a file server for the department equipment. The department also has a cluster computer, a three-dimensional visualization system and a robotics laboratory. The main department equipment is on a local area network and is accessible from the Internet or from anywhere on campus. There are additional ports in the labs for students to connect their laptop computers and the department is equipped for WIFI access. Beginning with the first semester of their sophomore year, Computer Science students may be granted 24-hour a day, 7 days a week access to department computing facilities.

### Additional Information

Internships are available during the academic year and the summer for Computer Science majors.

### COURSES: 2005 - 2007

**Note:** CSC 106, CSC 107, and CSC 497 do not count as Computer Science electives.

**CSC 106 Introduction to Computing for Accountants**

An introduction to computer concepts and applications for accounting majors. Basic hardware concepts, networking, binary numbers and software, including the operating system, Excel and Access (up to an intermediate level). The exercises and examples have a slant toward the accounting field.

¹ This minor requires a minimal level of mathematical sophistication resulting from a college calculus sequence.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 107</td>
<td>Computer Programming for Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to the computer and programming using</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C with special emphasis on scientific and mathematical</td>
<td></td>
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<tr>
<td></td>
<td>applications. 2006-2007 only</td>
<td></td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Overview of computing science. Major issues in</td>
<td></td>
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<tr>
<td></td>
<td>computer technology/hardware, systems software,</td>
<td></td>
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<tr>
<td></td>
<td>theoretical foundations, artificial intelligence</td>
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<td></td>
<td>and social implications. (AS VII)</td>
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<tr>
<td>CSC 111</td>
<td>Introduction to Programming</td>
<td>4</td>
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<tr>
<td></td>
<td>Algorithms, programming, computers, languages and</td>
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<td></td>
<td>language structure. (AS VII)</td>
<td></td>
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<tr>
<td>CSC 212</td>
<td>Data Structures</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Basic concepts of data structures. User-defined</td>
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<tr>
<td></td>
<td>structures and abstract data types. Prerequisites:</td>
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<td></td>
<td>At least a C in CSC 111 and CSC 111L.</td>
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<tr>
<td>CSC 213</td>
<td>Large Scale Programming</td>
<td>4</td>
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<tr>
<td></td>
<td>Introductory concepts of software engineering</td>
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<tr>
<td></td>
<td>applied to the design and implementation of</td>
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<td></td>
<td>medium-scale software systems (approx. 1000-2000</td>
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<tr>
<td></td>
<td>lines of code). Advanced data structures. Prerequisite:</td>
<td></td>
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<td></td>
<td>CSC 212.</td>
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<tr>
<td>CSC 253</td>
<td>Computer Hardware</td>
<td>3</td>
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<tr>
<td></td>
<td>Introduction to digital logic, Boolean algebra,</td>
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<td></td>
<td>hardware and computer organization. Overview of</td>
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<td></td>
<td>current and future architectures, such as VLSI</td>
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<tr>
<td></td>
<td>chips used in personal computers, RISC systems and</td>
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<td>supercomputers. Prerequisite: CSC 111.</td>
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<tr>
<td>CSC 281</td>
<td>Automata and Algorithms</td>
<td>3</td>
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<tr>
<td></td>
<td>Formal language theory including finite and pushdown</td>
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<td></td>
<td>automata, grammars, Turing Machines, and Halting</td>
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<td></td>
<td>Problem. Introduction to the design and analysis of</td>
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<td></td>
<td>algorithms, classes of problems and methods for</td>
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<tr>
<td></td>
<td>developing an analysis. Prerequisite: CSC 212.</td>
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<tr>
<td>CSC 310</td>
<td>Information Organization and Processing</td>
<td>4</td>
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<tr>
<td></td>
<td>Data and knowledge bases, high-level organization</td>
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<td></td>
<td>and processing of information, expert systems,</td>
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<td></td>
<td>access to and ethical use of information. Prerequisite:</td>
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<td></td>
<td>CSC 213.</td>
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<tr>
<td>CSC 325</td>
<td>Computer Graphics</td>
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<td></td>
<td>Techniques involved in realistic image production</td>
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<td>including illumination models, object modeling,</td>
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<td>shadowing, texturing, ray tracing, radioisity,</td>
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<td>animation and advanced modeling techniques for</td>
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<td></td>
<td>natural phenomenon and characters. Prerequisite:</td>
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<td></td>
<td>CSC 212.</td>
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<tr>
<td>CSC 330</td>
<td>Distributed Computing</td>
<td>4</td>
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<tr>
<td></td>
<td>System software and distributed applications. Modern</td>
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<td></td>
<td>distributed operating systems, client/server and</td>
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<td>other models. Ethical issues related to security.</td>
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<td></td>
<td>Prerequisites: CSC 212 and CSC 253.</td>
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<tr>
<td>CSC 333</td>
<td>Modeling and Simulation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to the design of simulation programs.</td>
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<td></td>
<td>Uses programs to develop simulations as well as</td>
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<td></td>
<td>write simulation programs from scratch. Teaches</td>
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<td></td>
<td>students the elements of a system, and then how to</td>
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<td></td>
<td>develop, test and validate a simulation of this</td>
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<td></td>
<td>system. Prerequisite: CSC 212.</td>
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<tr>
<td>CSC 341</td>
<td>Numerical Analysis</td>
<td>3</td>
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<td>(MAT 341)</td>
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<td></td>
<td>See MAT 341.</td>
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<tr>
<td>CSC 342</td>
<td>Graph Theory</td>
<td>3</td>
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<td>(MAT 342)</td>
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<td></td>
<td>See MAT 342.</td>
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<tr>
<td>CSC 350</td>
<td>Artificial Intelligence</td>
<td>4</td>
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<tr>
<td></td>
<td>Methods for archiving or simulating human level</td>
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<td>cognition and problem solving using computers.</td>
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<td>Includes study of expert systems, natural language</td>
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<td></td>
<td>process neural networks, and more. Emphasis on</td>
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<td>social impact and ethics of AI. Prerequisite: CSC</td>
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<td>212.</td>
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<tr>
<td>CSC 351</td>
<td>Comparative Programming Languages</td>
<td>4</td>
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<tr>
<td></td>
<td>Systematic study of programming languages and their</td>
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<td></td>
<td>implementations. Programming in logical and</td>
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<td>functional programming languages is included.</td>
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<td></td>
<td>Prerequisite: CSC 213.</td>
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<tr>
<td>CSC 360</td>
<td>Intelligent Systems</td>
<td>4</td>
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<tr>
<td></td>
<td>An introduction to intelligent systems including</td>
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<tr>
<td></td>
<td>expert systems, Bayesian networks, fuzzy logic,</td>
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<td>neural networks, data mining, language</td>
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<td></td>
<td>understanding and basic robotics. Ethical, legal</td>
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<td></td>
<td>and social issues will be raised throughout the</td>
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<td>course and relevant current events will be discussed.</td>
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<td></td>
<td>Prerequisite: CSC 213.</td>
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<tr>
<td>CSC 380</td>
<td>Web Development</td>
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<td>Web history, design for the Web, fonts and</td>
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<td>typography, profiling/cookies, programming and</td>
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<td></td>
<td>scripting (including CGI, Perl, Java, JavaScript),</td>
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<td>database access, client/server mechanisms, search</td>
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<td>engines, copyright and use of copyrighted materials,</td>
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<td></td>
<td>security issues, ethical issues. Prerequisite:</td>
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<td></td>
<td>CSC 212.</td>
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<tr>
<td>CSC 391-491</td>
<td>Computer Science Seminar</td>
<td>1-1</td>
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<tr>
<td></td>
<td>Student-faculty seminar for majors. To be taken for</td>
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<td></td>
<td>three semesters. Topics will include professional</td>
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<td>responsibilities, the social impact of computing</td>
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<td></td>
<td>and ethical decision making.</td>
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<tr>
<td>CSC 395</td>
<td>Software Engineering</td>
<td>4</td>
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<tr>
<td></td>
<td>Professional responsibilities and the application</td>
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<td></td>
<td>of engineering principles to the design, production,</td>
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<td>use and maintenance of software is studied through</td>
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<td>readings and a team project.</td>
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<td></td>
<td>Prerequisite: CSC 213.</td>
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<tr>
<td>CSC 400</td>
<td>Special Topics in Computing</td>
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<td></td>
<td>Current topics of interest to faculty and students.</td>
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<td></td>
<td>Possible topics: data communications, networks,</td>
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<td></td>
<td>Java and other modern programming languages (e.g.</td>
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<td>Ada and Icon). Prerequisite: Permission of</td>
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<td>instructor.</td>
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<td>CSC 497</td>
<td>Internship</td>
<td>1-3</td>
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<tr>
<td></td>
<td>Special projects for local institutions/businesses</td>
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<td>— representing a significant learning component.</td>
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<td></td>
<td>Must be related to a specific focused task; credit</td>
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<td>is not given for just part-time work. Approved</td>
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<td></td>
<td>project proposal and results documentation required.</td>
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<td></td>
<td>Prerequisite: Permission of chair.</td>
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<tr>
<td>CSC 498</td>
<td>Independent Project</td>
<td>3</td>
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<tr>
<td></td>
<td>Formulate a problem in Computer Science, design and</td>
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<td></td>
<td>implement a solution and evaluate the result.</td>
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<td></td>
<td>Documentation and oral presentation are required.</td>
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<td></td>
<td>Prerequisites: Junior status in computer science</td>
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<td>and permission of chair.</td>
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<td>CSC 499</td>
<td>Independent Study</td>
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<td>Prerequisite: Permission of chair.</td>
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</table>
The Communication Studies Department offers a bachelor of science degree through the Digital Media Arts program. As new and more powerful communication technologies in the digital age transform ways in which we communicate and interact, students will have a vast array of new career options. Students can position themselves to take advantage of these new opportunities by gaining cutting-edge practical and theoretical skills to create and design content using digital tools.

The Digital Media Arts degree in the Communication Studies Department focuses on multimedia design through technical and critical approaches in a 13-course, 39-credit major. State-of-the-art facilities are featured at the Digital Media Arts’ home in Lyons Hall.

**Admission**
Prospective Digital Media Arts majors must have a cumulative G.P.A. of at least 2.00, including a minimum grade of C- in all digital media arts courses taken to date. Because of the highly competitive nature of the program, the performance of all majors is subject to review relative to their continuation in the program. It is expected that students in the program must have a much higher GPA than 2.0 to continue as a DMA major.

**Review of Prospective Majors**
The Communication Studies Department has adopted a program to review the academic progress of prospective digital media arts majors.

Every freshman class will be evaluated for progress within the major when they are second-semester sophomores and have accumulated 45 credits. This evaluation reviews the overall GPA, the student’s GPA in DMA 201 and at least two other DMA courses, as well as a portfolio of the student’s work.

In regard to transfers, the department will review each after he/she has taken three DMA courses at Canisius.

**The Digital Media Arts curriculum:**
Digital Media Arts majors select an academic sequence within the major. They need at least 39 hours (or 36 hours for dual majors) but are limited to a maximum of 54 hours in digital media arts.

A minimum overall average of 2.00 in all coursework is required of all Digital Media Arts majors to be certified for graduation.

**Digital Media Arts Curriculum**

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, III, IV, V, VI, VII, VIII (Area II is automatically fulfilled because this program is in the social sciences) (14) courses (42)
3. Major course requirements: (13 courses) (39)
   DMA 201 Introduction to Digital Media Arts (3)
   DMA 202 Digital Media Culture (3)
   DMA 203 Digital Design Concepts (3)
   DMA 204 Digital Media Law and Ethics (3)
   DMA 205 Digital Graphics (3)
   DMA 206 Interactive Multimedia (3)
   DMA 207 Digital Media Programming (3)
   DMA 408 Capstone (3)

A minimum grade of C- is necessary in all required courses. Students receiving a grade of D or F must repeat the course. All eight courses must be taken by all majors.

DMA electives (See list below) (5 courses) (15)
DMA major electives fall into three categories: Design, Technical and Critical. With the guidance of their advisors, DMA majors select 5 courses from among major electives to create a coherent program of study. At least 2 of the courses selected should be in design.

4. Electives (9 courses) (27)
TOTAL (40 courses) (120)

**DMA Electives**

**Design**
COM 342-Intro to Web Design
COM 381-Desktop Publishing
COM 394-Advanced Web Design
DMA 339/FAS 131/COM 343 -Digital Photography
DMA 384-Digital Typography
DMA 386-Real-time 3D Modeling
DMA 388-3D On-line Cartooning
DMA 390-Beginning 3D Modeling
DMA 391-Advanced 3D Modeling
DMA 393-Advanced Digital Design
FAS 110-Two-Dimensional Foundations
FAS 111-Studio Drawing
FAS 113-Studio Design

**Technical**
COM 361-Intro to TV Production
COM 461: Advanced TV (Studio) Production
DMA 308/COM 308/FAM 310: Digital Audio Production
DMA 309: Music Technology
DMA 387/COM 387: Digital Video Production
DMA 389: 2D Computer Animation
DMA 394: Advanced 2D Animation
DMA 480: Advanced Digital Media Programming
DMA 487: Advanced Digital Video Production
CSC 111: Intro to Programming
ISB 211: Programming Concepts for Business
ISB 455: E-Commerce and Web Site Design
Critical
COM 328: Scriptwriting
COM 374/FAH 374: Film History
COM 375/FAH 375: Film Classics
DMA 340: Writing for the Digital Media
DMA 359: Criticism and Evaluation
PHI 325: Philosophy of Art & Beauty
ISB 470: Special Topics in IS: Cybersecurity
Other
DMA 488: Internship I Seminar
DMA 498: Internship II Seminar
(possible)

Recommended Schedule

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<th>FALL</th>
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<td>Freshman Year</td>
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<tr>
<td>ENG 101</td>
<td>3 ENG 102</td>
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<td>DMA 201</td>
<td>3 RST 101</td>
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<td>AS</td>
<td>3 DMA elective</td>
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<td>AS</td>
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<td>Sophomore Year</td>
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<td>PHI 101</td>
<td>3 DMA elective</td>
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<td>DMA 202 or 203</td>
<td>3 DMA 206</td>
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<td>Junior Year</td>
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<td>DMA 202 or 203</td>
<td>3 DMA 207</td>
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<td>DMA 205</td>
<td>3 DMA 204</td>
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<td>AS</td>
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<td>Free elective</td>
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<td>Senior Year</td>
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<td>DMA 408 or DMA elective</td>
<td>3 DMA 408 or DMA elective</td>
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<td>Internship</td>
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Additional Information

The Digital Media Arts program combines design, technical, and critical approaches with intensive instruction in the use of digital tools. Dual majors are available with the permission and guidance of both chairs.

Facilities

Four computer labs, digital video editing stations, an audio/music production studio and a television studio/control room are available for student use in Lyons Hall.

The Lyons Hall third-floor Mac Lab, in Lyons 312, features 26 Macintosh G5 iMac Flat Panel computers with DVD-RW drives, laser printer, and 1 Power Macintosh G4 tower with scanner and multimedia card reader. Software available includes Adobe Illustrator CS2 & Indesign, Imageready, Pagemill, Photoshop CS, Apple iMovie, iTunes, Appleworks 6, Realplayer, Macromedia Director, Dreamweaver, Flash, Fireworks, Microsoft Office 2004, Quark Express, Protocols LE, After Effects 6.5, Cinema 4D. A scanner and a laser printer flank the room. A touch screen in an instructor's bunker controls a VCR, DVD player and an Elmo documentation presentation system. Ports for plug-and-go setups, such as laptops and laserdisc players, are built into the bunker.

A web and imaging lab in Lyons 325, provides 3 Macintosh G5 iMac Flat Panel computers with DVD-RW drives, a Gateway Profile running Windows XP, 2 scanners, 3 drawing tablets, a large format color inkjet printer and a color laser printer. Software is identical to the software in LY 312.

The digital imaging lab, which is maintained by the Media Center in Lyons 413, houses: 3 Final Cut Pro non-linear editing stations (MAC); 3 iMovie non-linear editing workstations (MAC); 3 iMac computers for still imaging (MAC); 1 scanner workstation (MAC); 1 Laser printer; 1 audio editing workstation featuring Digital Performer, GarageBand & ProTools LE (MAC) and an audio production studio.

An additional lab, Lyons 122, features 14 dual processor G4 Macs, a laser printer and a scanner. Software includes Maya and Final Cut Pro. This computer lab is primarily used for advanced Digital Media Arts electives.

A design production lab in Lyons 316, features mounting resources for presentations of printed digital work.

In the Media Center on the fourth floor of Lyons Hall, a 26' x 30' television studio features a hard cyclorama, lighting grid with dimmer control and three digital studio video cameras.

The control room has custom-built consoles to house the digital video switcher with special effects, a 16-channel audio mixing board, teleprompter, DAT audio recorder, character generator and an intercom/FB system. The digital video-mastering format is DVCAM with BetaCam SP, S-VHS and Hi-8 video transports. Four equipment racks and
consoles house the audio/video distribution, including patch panels and routers. The studio also has the capability to send video to the campus cable RF video system. The college’s Media Center provides the TV studio’s operational support. Across from the TV studio, a screening room provides comfortable tiered seating, a video and DVD projector, as well as a professional sound system. Students can also sign out equipment (various digital cameras, camcorders, etc.) from the Media Center on the 4th floor of Lyons Hall. Check out http://www.canisius.edu/mediacenter/equipment.asp for a complete list of available resources.


Note: Some communication studies courses count as DMA courses. Please refer to the Communication Studies section in this catalog for descriptions. Additional courses may be offered each semester in both the day and evening. Students should consult the department.

DMA 201 (COM 211) Intro to Digital Media 3
Introduces the fundamentals of digital systems and technologies through class lecture and hands-on approaches. Software and hardware used for web design, multimedia, video production, graphics and audio production.

DMA 202 (COM 212) Digital Media Culture 3
Explores how digitization impacts our personal, business, cultural, institutional and international lives. Also examines the ways in which digital media transform communication and expression.

DMA 203 (COM 213) Digital Design Concepts 3
Introduces the conceptual, perceptual and manual skills in traditional design, as well as how hypertext. Topics include typography and visual communication, color theory, the principles of form, structure, spatial design and photomanipulation.

DMA 204 (COM 326, PSC 326) Digital Media Law/Ethics 3
Introduces a wide range of legal and ethical issues in cyberspace, including: the First Amendment, copyright, libel, hate speech, pornography/obscenity, privacy, commercial speech and national security.

DMA 205 (COM 215) Digital Graphics 3
Examines digital graphics and how they are created and used in web design, multimedia and desktop publishing. Software packages such as Adobe Photoshop and Illustrator will be used. Prerequisite: DMA 201 or permission of instructor.

DMA 206 (COM 216) Interactive Multimedia 3
Examines the types, processes and applications of multimedia content. Emphasis will be on the production and manipulation of video, sound and animation files to create interactive computer presentations using Macromedia Director. Prerequisite: DMA 201 or permission of instructor.

DMA 207 Digital Media Programming 3
Explores the structure of the Internet, its software and different programming languages. Covers XHTML, Javascript, CSS as they apply to web design. Prerequisite: DMA 201 or permission of instructor.

DMA 308 (COM 362, FAM 310) Digital Audio Production 3
Learn fundamental techniques of digital audio and music production using current technologies in digital recording, software and audio post-production. Discuss current trends in audio production and the tools used for composing and producing electronic music. No music background required.

DMA 309 (FAM 309) Music Technology 3
Explore music sequencing, midi, audio plug-ins and other tools used by professional musicians, sound designers, and multimedia specialists. No music background required.

DMA 339 (COM 343, FAS 131) Digital Photography 3
This course covers the basic methods used to capture, record, manipulate and exchange images both on film and through digital files. A workflow designed to merge film-based photography into editing software will be presented.

DMA 340 Writing for the Digital Media 3
Intensive writing assignments employing message-design principles/style guidelines for writing for the web, CDs, DVDs, etc.

DMA 359 Criticism and Evaluation 3
This course explores criteria for judging aesthetic quality, functionality, usability and effectiveness of digital media projects. Students will combine selected theoretical topics and research with hands-on work intended for review by real-world clients, design competitions, and digital media festivals. Prerequisite: DMA 201 or permission of instructor.

DMA 384 Digital Typography 3
Principles of typography will be presented, including popular and classic typefaces. Students can design their own typefaces for both print and screen.

DMA 386 Real-time 3D Modeling 3
The course explores the complexities of low-polygon, real-time 3D graphics. Students will produce real-time graphic projects for use on-line or within a game engine such an Unreal Tournament.

DMA 387 (COM 387) Digital Video Production 3
Focuses on the technical and creative processes involved in digital video field production and post-production. Topics include scripting, lighting, camera operation, audio, non-linear editing and video streaming for the web. Prerequisite: DMA 201 or permission of instructor.

DMA 389 2D Computer Animation 3
Introduction to the history and techniques of traditional animation, including storyboarding, object creation and manipulation through time and space using the twelve principles of animation. Discussion of motion analysis in conjunction with advanced timing, acting, scenes, secondary actions, image synthesizing and special effects in relation to the modern computer. Prerequisite: DMA 201 or permission of instructor.

DMA 390 Beginning 3D Modeling 3
Introduces to the complexities of 3D design using Alias’ Maya to create photorealistic imagery and 2D models. Students will also learn the basics of animation and real-time 3D modeling for use with Demicron’s Wirefusion software. Prerequisite: DMA 201, DMA 205 or permission of instructor.

DMA 391 Advanced 3D Modeling 3
Students will push their modeling, animation, texturing and rendering skills to the next level in order to complete a real-time design, video, or other high-end 3D project. Prerequisite: DMA 390 or permission of instructor.

DMA 393 Advanced Digital Design 3
Advanced course demanding innovative, intellectual, design and technical skills in multimedia and cyber-communication projects. Authoring, video and sound editing computer applications, animation, as well as cyberspace file transfer and programming are emphasized. Prerequisite: DMA 203 or permission of instructor.

DMA 394 Advanced 2D Computer Animation 3
Expanding upon 2D Computer Animation, this production course will develop an entire animated feature from start to finish. Processes involve creating detailed storyboards, character design, background and stage imaging, and motion studies. The project will be broken into a series of smaller scenes and re-assembled with animated titles and credits resulting in a complete 2D animated short. Prerequisite: DMA 389.
DMA 408 Capstone 3
Students will develop a portfolio helpful for an entry-level position in digital media. A professional-level project will be required of all majors to demonstrate specific strengths in visual communications, web-based research, interactive CDs, DVDs, websites, traditional print materials and the like.
Service learning option.

DMA 480 Advanced Digital Media Programming 3
In this course students explore advanced server and client side programming using PHP, MySQL, XML, AS, and DHTML in order to create complex database-driven on-line systems and interactive art works. Examples include content management engines and procedural epoetry.

DMA 487(COM 487) Advanced Digital Video Production 3
This course focuses on advanced techniques in non-linear editing, motion graphics and digital video production. Critical analysis of micro-media digital films, important avant-garde breakthroughs, streaming video and the development of graphic design in motion will be covered. Software: Apple Final Cut Pro HD and Adobe After Effects.

DMA 488 Internship I Seminar 3-12
Student experientially learns communication and digital media functions in compatibly matched professional setting, locally or out-of-town. Faculty and on-site supervision. Seminar required. Pass/fail. May be repeated as DMA 498; 12-credit limit for DMA 488/498 combined.
Prerequisite: Open to junior and senior majors with G.P.A. of at least 2.50 and DMA average of 2.70 and approved by department faculty. Applications on Communications Studies Department website.

DMA 498 Internship II Seminar 3-9
Sequel to DMA 488 for students taking a second internship. Each student is limited to a combined total of 12 credit hours for DMA 488 and 498.
Prerequisite: Same as for DMA 488.
The Economics Department provides a foundation of courses designed to help all Canisius students understand the national and global economy. The major provides preparation for entry-level and advanced positions in a variety of career choices through its broad based study of economic activity. Potential career choices include sales, marketing, production, finance and banking.

Opportunities also exist at various levels of government such as municipalities, local development authorities, the Federal Reserve, the Department of Labor and the Department of Commerce. All these employers value the critical thinking and analysis skills fostered in an economics curriculum. The Economics program has also proven to be an excellent preparation for graduate schools. Some students choose to continue the study of economics in Ph.D. and masters’ programs. Other students use the strong analytical foundations of their economics training to pursue advanced degrees in business, health, public administration or law.

**Economics (B.A.) Curriculum**

1. **ENG 101, ENG 102, PHI 101, RST 101** (4 courses) (12)
2. **Area Studies:** Two courses from each of these areas: I, III, IV, V, VI, VIII (12 courses)
3. **Major course requirements** (12 courses)
   Mathematics elective: one Area VII mathematics course (MAT 111 or MAT 115) plus MAT 112 as an elective, is recommended for anyone considering graduate school (3-4)
   ECO 101 Principles of Macroeconomics (3)
   ECO 102 Principles of Microeconomics (3)
   ECO 205 Intermediate Microeconomic Analysis (3)
   ECO 206 Intermediate Macroeconomic Analysis (3)
   ECO 255 Business Statistics I (3)
   ECO 256 Business Statistics II (3)
   Economics electives: five courses at the 300 or 400 level (5 courses) (15)
4. **Electives:** Accounting and additional mathematics are strongly recommended for graduate school and the business world. (12 courses) (36)
   **TOTAL** (40 courses) (120-121)

1. Area II is automatically fulfilled because this program is in the social sciences. Area VIII is fulfilled by the mathematics requirement.
2. Honors section recommended.

**Recommended Schedule**

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<tr>
<td>FRESHMAN YEAR</td>
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<tr>
<td>ENG 101</td>
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<td>ECO 101</td>
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<td>RST 101</td>
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**TOTAL** 120-121

**Other Programs**

Economics majors may also obtain a concentration in Finance by using economics electives to take three to five of the following courses: FIN 301, FIN 312, FIN 311, FIN 314, FIN 330, FIN 410, FIN 411, FIN 455, FIN 460. This specialization is appropriate for students who wish to make a career in banking or finance. These students should also use free electives to acquire some training in accounting.

The Economics-Mathematics dual major is strongly recommended for the student who plans a career in the academic world in either finance or economics. Up to three mathematics courses beyond MAT 111 can be used as economics electives.
analysis should consider the courses identified in the special programs section of the catalog. Dual majors are also available with history, urban studies, international relations and other areas. Students interested in dual majors should consult with the chairs of both departments or programs.

Economics Minor

ECO 101 Principles of Macroeconomics (3)
ECO 102 Principles of Microeconomics (3)
ECO 255 Business Statistics I (3)
Economics elective:
four courses at the 200, 300, or 400 level (12)
TOTAL (21)


The full list of economics courses, including descriptions, may be found in the Economics and Finance listing under the Richard J. Wehle School of Business.

The Department of English serves all students at Canisius as well as its own English majors. In keeping with the college’s Jesuit mission to educate the whole person, the English Department strives to nurture intellectual and spiritual growth through the study of literature and writing. Through the study of literature and the practice of writing, we join the discussion of what it means to be human.

The Department staffs courses on three levels: English major courses, as well as a variety of literature and writing courses in Area III of the core curriculum, and freshman English Seminars I and II.

Our major courses present an array of literary experiences centered upon the study of literature, in fiction and non-fiction readings, and writing. The English Department offers minors in theater arts, writing and creative writing.

Reading and writing assignments foster both intellectual inquiry and growth of the imagination. Writing about literature fosters depth and precision in expression, close textual analysis, understanding of historical contexts and examination of professional criticism.

Courses in Area III (Art and Literature) for non-majors provide study in the various genres of literature: poetry, fiction, drama, the essay and autobiography. The English Department offers multicultural and interdisciplinary courses such as African American and Native American literature, Literature and Film, Literature and Psychology and The Immigrant Experience in American Literature. It also offers a range of courses in Women’s Studies, including Women Writers, American Women’s Poetry and Images of Women in Literature and Film.

English Seminars I and II are designed to enhance literacy, communication skills, critical acuity, and intellectual development through the study of non-fiction prose and literary texts and emphasis on written expression.

Departmental faculty advisors work closely with students regarding course selection and career opportunities. In addition to the classroom experience, internships in local business, arts, non-profit and social service oriented organizations prepare majors for careers in all areas where effective communication, organization, understanding and empathy are essential.

These include, but are not limited to, teaching, writing, publishing, law, social work, mass media and public relations.

Admission

Students who wish to become English majors should have an interview with the chair of the English Department. The quality of an applicant’s performance in ENG 101 and ENG 102 is important.

English Curriculum

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) 12
2. Area Studies: Two courses from each of these areas I, II, IV, V, VI, VIII (14 courses) 1 (42)
3. Major course requirements:2 (12 courses) ENG 300 Introduction to English Studies (3) Shakespeare: one 300 level course (3) British Literature Distribution — one 300/400 level course from three of the following four historical periods: I. Medieval through Early Seventeenth Century, II. Restoration through Eighteenth Century, III. Nineteenth Century, IV. Twentieth Century. American Literature Distribution: one 300/400 level course from each of the following major historical periods: I. Pre-Civil War American Literature, II. Post-Civil War American Literature (6) Writing: one 300/400 level course. (3) English electives: four 300/400 level courses (12)

Note: All courses used to meet the English major course requirements must be on the 300 or 400 level.

4. Electives (10 courses) 30
TOTAL (40 courses) (120)

Portfolio

In addition to the coursework listed above, students will be required to submit a portfolio of their work in the English major, consisting of a selection of papers and a Reflections page, toward the end of their senior year, in order to graduate. Please see our English website, or contact your English major advisor, for more information.

1 Area III is automatically fulfilled because this program is in the art and literature area.
2 Ordinarily, English majors may fulfill their English requirements with as many as two independent study courses (ENG 499).
3 Courses representative of the historical period must include at least three major authors and a representative genre, topic or issue.
Recommended Schedule

FALL
Freshman Year
ENG 101 3
Language 3
AS (History) 3
AS 3
AS 3
Total 15
Sophomore Year
ENG 102 3
AS (History) 3
AS 3
AS 3
Total 15
Junior Year
RST 101 or PHI 101 3
British or American 3
AS 3
Elective 3
Total 15
Senior Year
British or American 3
English elective 3
AS 3
AS 3
Elective 3
Total 15
TOTAL 120

Other Programs

Honors: Students who have completed two English department seminars with distinction and an honors thesis will have earned the English Honors designation.

Dual Majors: Dual majors involving English are available in a large number of areas, including biology, history, modern languages, philosophy, psychology, and sociology. Interested students should consult the chairs of both departments. With the permission of both chairs, interdisciplinary courses may be used for credit toward the major requirements in both departments.

Course clusters combining English and pre-law or business are also available. In addition, three minors are offered. They are:

- English Minor: For non-majors only. A six-course sequence that includes many of the basic requirements for English majors.
  - ENG 300 Introduction to English Studies (3)
  - British Literature Distribution: one 300/400 level course from any period (3)
  - American Literature Distribution: one 300/400 level course from either period (3)
  - Shakespeare: ENG 322 or ENG 323 (3)
  - Writing: one 300/400 level course (3)
  - English elective: one 300/400 level course (3)
  Total (6 courses) (18)

- Writing Minor: For both majors and non-majors. A five-course program that includes rhetorical theory and practice, writing in various contexts, workshops with practicing writers and an internship in writing.
  - ENG 401 Texts, Contexts, and Subtexts (3)
  - Writing electives: three courses (ENG 385, 389, 394, 411, 494, 495, 496) (9)
  - ENG 498 Internship (3)
  Total (5 courses) (15)

- Creative Writing Minor: For both majors and non-majors. A five-course program that provides interested students the opportunity to learn and practice the fundamentals of writing stories, poems, essays and plays. Students may choose among:
  - ENG 394 Introduction to Creative Writing
  - ENG 494 Advanced Creative Writing: Fiction
  - ENG 495 Advanced Creative Writing: Poetry
  - ENG 496 Advanced Creative Writing: Literary Non-Fiction
  - ENG 498 Internship
  - ENG 499 Directed Study
  Additional courses: ENG 312, ENG 388, ENG 411
  Total (5 courses) (15)

- Theater Arts Minor: For both majors and non-majors. A five-course sequence that includes course work in acting and production as well as in dramatic literature.
  - ENG 345 Drama (3)
  - ENG 410 Introduction to Theatre (3)
  - ENG 412 Acting I (3)
  - Theater Arts elective: (1 course) (3)
  - ENG 498 Internship (3)
  Total (5 courses) (15)

Students interested in one of these minors should see the department chair.

Additional Department activities, designed to make literature a more integral part of the academic and creative life of English majors and other members of the college community, include the Quadrangle literary magazine, the English Club, Sigma Tau Delta (International English Honors Society) and the Speaker’s and Guest Artist’s Program. Also available for students are The Griffin college newspaper and the Little Theatre.
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<tbody>
<tr>
<td><strong>ENG 101 English Seminar I</strong></td>
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<tr>
<td>A course in reading and writing. Intensive practice in various kinds and modes of writing. Stress on writing instruction, with some practice in research. Readings are primarily discursive prose.</td>
</tr>
<tr>
<td><strong>ENG 102 English Seminar II</strong></td>
</tr>
<tr>
<td>A course in reading and writing. Emphasis on writing, this time of a more complex sort, including a research assignment. Particular attention to summary, analysis and organizational skills. Reading selected primarily from literature. Prerequisite: Passing grade in ENG 101.</td>
</tr>
<tr>
<td><strong>ENG 123 English Grammar</strong></td>
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<tr>
<td>English grammar for those who wish to improve their understanding of English syntax and structure. Free elective credit only.</td>
</tr>
<tr>
<td><strong>ENG 200 Science Fiction</strong></td>
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<tr>
<td>A survey of science fiction literature; its nature and function as social commentary and art. (AS III)</td>
</tr>
<tr>
<td><strong>ENG 203 (WST 203) Identity and Culture</strong></td>
</tr>
<tr>
<td>How identity is shaped in relation to culture as seen through the formal and thematic elements of literary texts and films. Defining the textual strategies which reveal the representation of valued personal and cultural identities. (AS III) (ICD)</td>
</tr>
<tr>
<td><strong>ENG 204 Classic American Literature</strong></td>
</tr>
<tr>
<td>Develops the non-specialist student’s knowledge and appreciation of some landmark works in our literary heritage. Traces certain thematic trends through American letters. (AS III)</td>
</tr>
<tr>
<td><strong>ENG 207 Word and Image</strong></td>
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<tr>
<td>Formal and thematic elements of literary texts, films and texts composed of both words and images. Emphasis on how interpretive strategies that are specific to verbal texts might be made useful for understanding visual texts, and vice versa. (AS III)</td>
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<tr>
<td><strong>ENG 222 Shakespeare</strong></td>
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<tr>
<td>Introductory survey for non-majors. Typically, 6-8 plays, drawn from the categories of comedy, tragedy and history. (AS III)</td>
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<tr>
<td><strong>ENG 255 Poetry</strong></td>
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<tr>
<td>Reviews the basic elements of poetry and then examines the major poetic genres and their respective conventions and motifs. (AS III)</td>
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<tr>
<td><strong>ENG 262 (GRN 262) Images of Aging in Literature</strong></td>
</tr>
<tr>
<td>Variety of literary types and authors from different cultures and time periods. Theme: aging and how it is used in different ways by various authors. (AS III)</td>
</tr>
<tr>
<td><strong>ENG 268 The Classic English and American Novel</strong></td>
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<tr>
<td>Focuses on the outstanding novelists of the language, with an overview of the main developments in the novel's form and themes. (AS III)</td>
</tr>
<tr>
<td><strong>ENG 300 Introduction to English Studies</strong></td>
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<tr>
<td>Introduction to the essentials of literary analysis and interpretation. Focusing on the rigorous analysis of poetry, prose narrative and drama chosen from different historical periods, the course will stress writing with critical awareness about literature. Required of all English majors. Prerequisites: English 101 - 102</td>
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<tr>
<td><strong>ENG 301 British Literature for Majors I</strong></td>
</tr>
<tr>
<td>Representative works of British Literature from the middle ages through the 18th century.</td>
</tr>
<tr>
<td><strong>ENG 302 British Literature for Majors II</strong></td>
</tr>
<tr>
<td>Survey of 19th and 20th century British Literature, providing overview of authors, genres and issues for the Romantic, Victorian and Modern periods.</td>
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<tr>
<td><strong>ENG 303 Medieval Literature</strong></td>
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<tr>
<td>A survey of the major voices of medieval British literature centering on Chaucer.</td>
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<tr>
<td><strong>ENG 304 Sixteenth Century Literature</strong></td>
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<tr>
<td>A survey of the poetry and prose of major 16th century British authors, including some continental works.</td>
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<tr>
<td><strong>ENG 305 Seventeenth Century Literature</strong></td>
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<tr>
<td>A survey of the poetry and prose of major British authors from the Renaissance to the Restoration.</td>
</tr>
<tr>
<td><strong>ENG 306 Eighteenth Century Literature</strong></td>
</tr>
<tr>
<td>A survey of the poetry and prose of major British authors in the &quot;long&quot; eighteenth century.</td>
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<tr>
<td><strong>ENG 307 English Romantic Poets</strong></td>
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<tr>
<td>The meaning and spirit of English Romanticism studied through a close examination of important poems by Wordsworth, Coleridge, Byron, Shelley and Keats.</td>
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<tr>
<td><strong>ENG 308 Victorian Literature</strong></td>
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<tr>
<td>Examines the conflict between religion and science, culture and technology, historical determinism and historical change that characterized literature of the Victorian period.</td>
</tr>
<tr>
<td><strong>ENG 309 Modern and Contemporary British Literature</strong></td>
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<tr>
<td>A survey of representative figures and genres.</td>
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<tr>
<td><strong>ENG 310 British Youth in Literature</strong></td>
</tr>
<tr>
<td>Britain's rock culture traced back to its roots in the “Angry Young Men” writers, “Social Realism” cinema, and 1960s transatlantic “British Invasion” in rock music.</td>
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<tr>
<td><strong>ENG 311 (WST 311) Women Writers</strong></td>
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<tr>
<td>Works by women writers from all periods and backgrounds.</td>
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<tr>
<td><strong>ENG 312 (WST 312) American Women's Poetry: Reading and Writing</strong></td>
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<tr>
<td>Practice in reading and writing poetry, as well as critical interpretation. Emphasis on women poets from 1950s to present. (AS III)</td>
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<tr>
<td><strong>ENG 313 (WST 313) Literature and Psychology</strong></td>
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<tr>
<td>Focuses on the convergence of the disciplines of literature and psychology, especially the ways in which psychology has drawn on literary genres, techniques and motifs. (AS III)</td>
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<tr>
<td><strong>ENG 315 American Literature I</strong></td>
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<tr>
<td>The first half of a two-semester American literature survey. The course begins with the Puritans and ends with the 19th century American Realists.</td>
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<tr>
<td><strong>ENG 316 American Literature II</strong></td>
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<tr>
<td>A survey of representative American writers from the end of the Civil War to the present. Emphasis on Twain, Dreiser, Faulkner, O'Neill and Frost.</td>
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<tr>
<td><strong>ENG 317 Heroes and Heroines in American Literature</strong></td>
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<tr>
<td>A study of uniquely American heroic types, including the Algon hero, the western hero and the picaresque hero. Representative texts studied in detail, in historical and cultural context.</td>
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<tr>
<td><strong>ENG 318 Modern American Novel</strong></td>
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<tr>
<td>A study of representative modern and contemporary American novels.</td>
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<tr>
<td><strong>ENG 319 (WST 319) Special Topics in American Literature</strong></td>
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<tr>
<td>The study of a particular theme, mode or period, such as the hero, the American Renaissance, or the Roaring Twenties.</td>
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<tr>
<td><strong>ENG 320 Contemporary Catholic Fiction</strong></td>
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<tr>
<td>Study of novels and short stories by Catholic American writers from 1950 to the present: writers such as Flannery O'Connor, Walker Percy, Mary Gordon and Andre Dubus. (AS III).</td>
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<tr>
<td><strong>ENG 322 Shakespeare I</strong></td>
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<tr>
<td>Introductory survey for majors. Plays drawn from the categories of comedy, tragedy and history.</td>
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<tr>
<td><strong>ENG 323 Shakespeare II</strong></td>
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<tr>
<td>Works selected with emphasis on specific themes, structures, or styles. Shakespeare I not a prerequisite.</td>
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<tr>
<td><strong>ENG 324 (WST 324) Reading and Writing in Early America</strong></td>
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<tr>
<td>This course explores pre-Civil War writers and the audiences of their texts in terms of the social and cultural significance of literary and poetry production.</td>
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<tr>
<td><strong>ENG 330 Literature and the Bible</strong></td>
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<tr>
<td>A study of literary forms and styles in the Bible. (AS III)</td>
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ENG 331 Studies in Irish Literature
An historical survey focused mainly on 20th century Irish writers. An aim of the course is to define Irish literature and identify its distinguishing features.

ENG 343 Comedy and Humor
A course for enjoying and thinking critically about a great variety of texts, ranging from single-sentence jokes to stage plays and novels. (AS III)

ENG 344 Children’s Fantasy Literature
The main purpose of this course is to give upper-level college students a mature literary experience in the study of children’s writers, among whom are Lewis Carroll, Frances Hodgson Burnett, C.S. Lewis, J.R.R. Tolkien and Russell Hoban.

ENG 345 Drama
Survey of drama from classical to modern. (AS III)

ENG 347 (WST 347) English Novel I
Survey of major English novels from Defoe to Austen, including works of Sterne, Goldsmith and others.

ENG 348 (WST 348) English Novel II
Major British novels from the nineteenth century. (AS III)

ENG 349 Modern British Novel
Survey of major British novels of the twentieth century.

ENG 350 European Novel
A study of European novels, primarily French, Russian, German and Italian.

ENG 351 Modern European Literature
Survey of European literature from World War I to the present. Authors include Mann, Singer, Camus, Milosz and Rilke.

ENG 352 Immigrant Experience in Literature
The course focuses on literary works, chosen from a variety of periods, that reflect the immigrant experience.

ENG 353 Canadian Literature
An examination of the prose and poetry of several regions of Canada including the works of Margaret Atwood and Hugh Maclennan.

ENG 355 Poetry
An in-depth survey of poetry.

ENG 356 Modern Poetry
Major modern and earlier twentieth-century poetry, to about 1950.

ENG 357 Contemporary Poetry
Major trends and currents in twentieth-century poetry, from 1950 to the end of the century.

ENG 361 The Literature of Service
A practicum combining the study of the history of the literary magazine. Includes the practical work of editing The Quadrangle, the Canisius College literary magazine.

ENG 362 Short Fiction
Detailed investigation of various modes of short fiction to develop student’s ability to read, comprehend and appreciate short fiction through an understanding of its techniques. (AS III)

ENG 366 Literary London
Major literary works studied in the context of the city. Includes a trip to London.

ENG 368 (WST 368) Native American Literature
A survey of contemporary Native American literature, covering major and lesser-known authors. The course traces the origins of traditions, both thematic and structural.

ENG 369 (WST 369) Contemporary Fiction
Study of recently published novels and short stories, exploring the formal and thematic range of new fiction and focusing on the contemporary issues it reflects. (AS III)

ENG 370 Special Topics in Literary Themes and Modes 3
The study of themes and modes in British or British and American literature that cut across historical periods and genres, such as war and literature, utopian literature, or romance and epic.

ENG 371 Special Topics in Drama
Selected plays chosen by the instructor to elucidate the nature of the dramatic genre, or sub-genre, or to study a specific historical period, such as Restoration drama.

ENG 372 Major Figures in British Literature
An in-depth examination of the major works, life and times of one important figure, chosen by the instructor, from any period of British literature from the Middle Ages to the present.

ENG 373 Major Figures in American Literature
An in-depth examination of the major works, life and times of one important figure, chosen by the instructor, from any period of American literature from the Revolutionary period to the present.

ENG 374 Interdisciplinary Studies
Selected works chosen by the instructor to examine the connections between English or American literature and other disciplines.

ENG 375 Special Topics in Literary Criticism
Selected works studied in the context of critical theory, aesthetics, or the history of literary criticism.

ENG 376 Film as Literature
An exploration of the relationship between two distinct aesthetic forms: film and literature. The course relies heavily on the original written text and then explores the film director's interpretation of the literary work. (AS III)

ENG 377 (WST 377) Images of Women in Literature and Film
Representations of women as major characters in film and literature.

ENG 378 The City in American Literature
The city as the focus for literary representation in the American tradition.

ENG 382 African American Literature
A survey of major writers and historical trends in African American literature from the time of slavery to the present. (AS III)

ENG 384 The City in Literature
The city as the focus for literary representation in British, American and world literature. (AS III)

ENG 385 Persuasive Writing
Analysis and construction of arguments. Readings on issues in law, politics and education.

ENG 386 The Art of the Essay
The essay as a literary form studied in a variety of rhetorical and historial contexts.

ENG 388 Literary Publishing
A practicum combining the study of the history of the literary magazine in America with the practical work of editing The Quadrangle, the Canisius College literary magazine.

ENG 389 Business Communication
Practice in writing letters, memos, reports, with models and strategies offered for each form.

ENG 390 History and Structure of the English Language
Chronological overview of the history of the English language, with some attention to basic linguistic theory.

ENG 393 C.S. Lewis and Fantasy Literature

ENG 394 Creative Writing
Workshop in the fundamentals of poetry and fiction writing, focusing on the close study and discussion of both student manuscripts and professional texts. (AS III)
ENG 395 The Journey in Literature
Explores the concept of the journey in international literature from a number of cultural and intellectual perspectives. The journey theme provides unity and continuity through a diversity of texts. (AS III) (ICD)

ENG 396 English Honors Seminar
Any student may take one or more of the seminars. Seminar topics vary each semester.

ENG 400 English Honors Seminar: Thesis
ENG 401 (WST 401) Texts, Contexts, and Subtexts
The dynamic of rhetorical situations. Observations/practical writing in rhetorical theory, writing process theory, writing and thinking, socio-cognitive theory. Writing is both creative and analytical.

ENG 410 Introduction to Theater
The collaborative efforts of theater, play, and audience to create the theater experience.

ENG 411 Playwriting
The playwriting process. Brief review of dramatic technique and theory, followed by working through the process from germinal idea to finished playscript.

ENG 412 Acting I
Introduction to the art of acting. Through lecture and participation in acting assignments, performed in class, students gain understanding of the actor’s role in theater.

ENG 413 Acting II
Continuation of Acting I.

ENG 414 Technical Production
A hands-on course on the technical and artistic aspects of theatrical production. Research, experimentation and practical application of skills for each facet of production.

ENG 415 Special Topics in Theater Performance
Aspects of theatrical production, performance and direction.

ENG 494 Advanced Creative Writing: Fiction
Workshop for experienced writers in fiction. Prerequisite: ENG 394 or permission of instructor.

ENG 495 Advanced Creative Writing: Poetry
Workshop for experienced writers in poetry. Prerequisite: ENG 394 or permission of instructor.

ENG 496 Advanced Creative Writing: Literary Non-Fiction
Workshop for experienced writers in literary non-fiction, the artful telling of true stories. Prerequisite: ENG 394 or permission of instructor.

ENG 498 Internship

ENG 499 Independent Study
Tutorial arrangement for the investigation of an approved special area of work by a student reading under the close supervision of a faculty member. Prerequisite: Permission of the chair.
Environmental Science

Full-time faculty: Sara R. Morris, Coordinator; Paula F. Dehn, Robert J. Grebenok, Barbara A. Hanson, Peter M. Schaber, Steven H. Szczepankiewicz.

The Environmental Science major provides both theoretical and applied knowledge for students interested in professional careers in the environmental sciences, e.g., environmental consulting, environmental regulation and monitoring, environmental conservation, environmental health sciences (toxicology, occupational health, health physics, industrial hygiene, water quality industry) and the ecological sciences. In addition, the curriculum will facilitate entry into graduate programs in the ecological, environmental health (health physics, microbiology, occupational health, toxicology) and environmental sciences.¹

The Environmental Science program is designed to have an interdisciplinary focus with required and recommended courses coming from biology, chemistry, geology, philosophy, and political sciences. In addition, it is designed to provide needed job experiences through the completion of two required internships. For students interested in graduate study in the environmental sciences, one internship may be replaced with independent research in the environmental sciences.

All Environmental Science majors are assigned advisors within the program. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their internships. The advisor may be changed at the student’s request. Students must maintain an overall 2.0 G.P.A. in their major and support courses to graduate with a degree in environmental science.

Environmental Science Curriculum

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: II, III, IV, V, VI, VIII (12 courses) (36)
3. Major course requirements (19 courses)
   BIO 101/101L Introduction to Cellular/Subcellular Biology (5)
   BIO 102/102L Organismal Biology and Laboratory (5)
   BIO 201/201L Evolution, Ecology and Population Biology (5)
   BIO 203 Cellular Biochemistry (3)
   CHM 111-112 General Chemistry (10)
   CHM 227/227L Organic Chemistry and lab (5)
   PSY 201 Basic Statistics for Behavioral Science (4/3)
   or MAT 141 Inferential Statistics and Computers (4/8)
   MAT 111 Calculus (4/8)
   or MAT 109-110 Calculus with Review
   BIO 320 Field Ecology (4)
   BIO 305/305L Microbial Ecology (4)
   BIO 360 Environmental Health (3/4)
   or BIO 460 Environmental Toxicology (4)
   CHM 232 Environmental Analytical Chemistry (4)
   ENV 100 Introduction to Environmental Science Seminar (1)
   ENV 200 Introduction to Hydrology (lab required) (4)
   ENV 352 Environmental Science Junior Seminar (1)
   ENV 499 Environmental Science Internship (6)
   GEOL 120 Introduction to Geology (lab required) (4)
   In addition to the courses listed above, students must complete any two of the following electives. Of the upper level biology classes (300 and 400 level), three of the five must include laboratories (BIO 320 and BIO 305 are two of the three laboratories).
   BIO 330 Marine Biology and Ecology (4)
   BIO 335 Plant Biology (3/4)
   BIO 360 Environmental Health (3)
   BIO 365 Vertebrate Zoology (4)
   BIO 366 Ornithology (4)
   BIO 430 Medicinal Botany (3)
   BIO 455 Environmental Physiology (3/4)
   BIO 460 Environmental Toxicology (3/4)
   CHM 301 Classical Physical Chemistry (5)
   SCI 360 Scientific Modeling (3)
   Total (11-12)

4. Electives: (one course) (3)
   TOTAL (36 courses) (126 or 127)

Note: Those considering graduate school are strongly encouraged to take CHM 228 and PHY 201-202 as electives in the junior year. Environmental Ethics (PHI 348) is highly recommended as one of the Area V classes.

Recommended Schedule

FALL

Freshman Year

<table>
<thead>
<tr>
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Sophomore Year

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<td>BIO 201/201L</td>
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¹There is also an Environmental Biology minor.
### Recommended Schedule (continued)

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### COURSES: 2005 - 2007

**ENV 100 Introduction to Environmental Science Seminar**  
Introduction to the field. Career information included. Required for all first-year students. 2006-2007 only.

**GEOL 120 Introduction to Geology**  
Basic concepts, including uniformitarianism, the rock cycle, the hydrologic cycle, tectonics and surface processes. Also covers how humans affect and are affected by their environment. Lab required. **Prerequisite:** Students may not receive credit for both GEOL 120 and PHY 130. 2005-2006 only.

**ENV 200 Introduction to Hydrology**  
Introduction to hydrologic processes, methods for quantifying hydrologic parameters and processes, and practical exposure to conducting and reporting hydrological studies. Lab required. **Prerequisites:** GEOL 120 and lab. 2005-2006 only.

**ENV 352 Environmental Science Junior Seminar**  
Students attend scientific talks and present information relevant to their internship experiences. Career preparations also included.

**ENV 401 Independent Research**  
Independent laboratory research in environmental science conducted under the supervision of a faculty member. Arrangements made prior to registration. **Prerequisite:** Written permission of faculty member.

**ENV 499 Environmental Science Internship**  
Practical experiences in the environmental sciences. Students must complete two internships in different areas of environmental sciences. **Prerequisites:** Junior with a G.P.A. of at least 2.0 in the major, a positive recommendation from a faculty member and a completed and approved internship application (applications are available from the program coordinator and must meet the deadlines in the advisement guide).
In our increasingly globalized and interdependent world, the study of Europe is more important than ever before. European Studies is an interdisciplinary program designed to familiarize students with the culture, language, history, and politics of this important continent. For good or ill, our world has been shaped by Europe's history, as well as its rich cultural traditions, including its languages, literature, art and music — from antiquity to the present. Meanwhile, the expanding European Union has become an important player in international politics and business and represents Europe's future in the 21st century.

European Studies can be pursued as part of a double or triple major, as a minor, or as a certificate program. These programs are intended to supplement a major in a traditional academic discipline, as well as provide a “home” for courses taken while studying abroad in Europe. European Studies helps students build their resumes and combines well with majors in fine arts, foreign language, history, political science, international relations, or international business.

The European Studies Program encourages students to develop fluency in a modern European foreign language and participate in short-term or semester-long study abroad programs in Europe. By guiding students in their course selection and encouraging them to develop valuable skills and experiences, European Studies helps prepare students for graduate school or fellowship programs, such as the Fulbright Scholarship, as well as careers in international law, business, diplomacy or teaching.

### European Studies Major Curriculum

1. **ENG 101, ENG 102, PHI 101, RST 101** (4 courses) (12)
2. **Area Studies:** Two courses from each area
   - **Varies by second major and potential application to the European Studies major, as noted below** (10-12 courses) (30-36)
3. **Major course requirements** (10 courses) (30)
   a. European History & Politics (4 courses) (12)
   b. PSC 150 Comparative Government & Politics
   c. AS IV course on Europe or Honors 220
   d. Coursework in a modern European foreign language through the 216 level or certification of equal proficiency by the Department of Modern Languages (0-8 courses) (0-28)
4. **Requirements of second/third major** (10-20 courses) (30-60)
5. **Free Electives** (varies by second/third major) (0-10 courses) (0-30)

**TOTAL** (At least 40 courses, plus any required language labs) (120-124)

### Dual Degrees and Requirements

Students must have a second major in a traditional academic discipline and maintain at least a 2.0 Q.P.A in all course work to remain in the program. An unlimited number of courses may be applied to the European Studies major from area studies, the All-College Honors Program or a second or third major. No more than four courses at the 100-level may be counted toward European Studies. At least one course in the major must be taught by a member of the History Department, and one must be taught by a member of the Political Science Department.

Grammar-based courses in a modern European language or those on European literature may be counted toward the foreign language, literature and culture or major elective categories noted above. Latin may not be used to fulfill the modern foreign language requirement, but courses in the classics can be counted in the major. For further details and options, students should consult with their advisor and the Director of the European Studies Program.

### Recommended Schedule

This will vary according to the second or third academic major. Students are encouraged to fulfill their area studies or All College Honors requirements by taking courses on Europe in the social sciences, art and literature, history, religion, philosophy and foreign language. It is especially important for students to pursue a European foreign language at least through the 215-216 level and fulfill Area IV or Honors history requirements by taking courses on Europe. Students with a strong interest in European politics should take PSC 150 during their first year. Students are also strongly encouraged to study abroad in Europe for one semester and should contact the Office of International Student Programs for details about such opportunities.
European Studies Minor

Total (6 courses) (18)
1. European History & Politics (3 courses) (9)
   • PSC 150 Comparative Government and Politics
   or an AS IV course on Europe
   or Honors 220 (1 course) (3)
   • History and Politics Major electives (2 courses) (6)
2. European Foreign Language, Literature and Culture (3 courses) (9)
3. Coursework in a modern European foreign language through the 216 level or certification of equal proficiency by the Department of Modern Languages (0-8 courses) (0-28)

No more than three courses at the 100-level may be counted toward the minor. Courses taken from a second or third major, area studies or the All-College Honors Program may be applied to the European Studies minor. A maximum of two courses in a modern European foreign language may be counted toward the language, literature or culture category of the minor.

European Studies Certificate

This has the same requirements as the minor, with the addition of an academic semester abroad in an approved program. All Canisius College study abroad programs in Europe are approved. For more information, contact the Office of International Student Programs. Many courses taken abroad can be applied to the requirements of the major, minor or certificate.

Co-Curricular Opportunities

Students may participate in an annual international, intercollegiate simulation of the European Union, known as EuroSim, which is related to PSC 355/HIS 331. This program is held in Europe and New York State in alternating years. Additional information is available on the European Studies Program website and from the Political Science Department. Students may also enjoy an international living experience in the new Eastwood Residence Hall.
The Fine Arts Department provides opportunities for students to obtain a solid knowledge of the visual and performing arts. The department's offerings include a major and a minor in art history, a major and a minor in music and a minor in studio art. These programs enable students to explore the arts for their own personal and professional development and to receive training in the theory and practice of the three areas involved.

Art History Program

Martha Dunkelman, Director.

Canisius College offers a major and a minor in art history. The program includes a wide range of courses in the history of art from antiquity to the present. Courses are offered in the history of painting, sculpture, architecture and film. Majors, minors and non-majors alike will acquire an understanding and appreciation of the cultural heritage of their own and other civilizations both past and present. In a world where ethnic and cultural clashes are commonplace, respect for the artistic heritage of all civilizations is essential.

Art history courses approach the study of art as a visual language. At all levels, students in these courses learn to decipher and interpret a broad range of artistic styles within a cultural, historical and global context. At the same time, they explore the relationship between function, form and content in the visual arts of each culture. Students in all art history courses are introduced to a variety of critical methods of art historical analysis such as formal analysis, iconography, connoisseurship, feminism, Marxism and deconstruction.

All courses are designed for majors, minors and non-majors except FAH 460 and FAH 499, which are open to majors and minors only.

Electronic imaging technology is a major component of the art history major at Canisius. Students in art history courses learn from the most recent interactive multimedia technology as part of their art history training. Courses are conducted with interactive multimedia, as well as slides, in classrooms that are equipped with access to videos, DVDs, CD-ROMs and the Internet.

Museum internships are available to all junior and senior art history majors and minors. Students can gain hands-on experience in the many activities of the art collections in the Buffalo area. Students interested in careers in art history immediately upon graduation, as well as those contemplating graduate school, benefit strongly from the specialized training that these internships provide. In preparation for museum internships, students may take a Museum Studies course that introduces them to museum research, curatorship and administration.

Majors in art history graduate with a truly liberal, humanistic education that prepares them for work in any profession where critical thinking, analysis, research and writing skills are essential, and where cultural understanding and sensitivity are prerequisites. Art history courses also benefit students who plan to work in any field that deals with foreign cultures.

A number of professional options are open to the art history student, especially when coupled with graduate training. Students interested in specific careers as art historians may go on to become academic faculty, museum curators, archaeologists, or art conservators, or they may pursue careers in historical preservation, library science, interior design, art journalism, arts management and many other fields.

Admission

Prospective majors and minors should see the Art History Program Director.

Art History Curriculum

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses)\(2\) (12)
2. Area Studies: Two courses from each of these areas: I, II, IV, V, VI, VII, VIII (14 courses) (42)
3. Major course requirements: (12 courses)\(2\)
   - FAH 101 Introduction to Art History I (3)
   - FAH 102 Introduction to Art History II (3)
   - Ancient and/or medieval art: two courses (6)
   - Renaissance and/or Baroque art: two courses (6)
   - 19th and/or 20th century art: two courses (6)
   - Art History electives: four courses (12)
4. Electives: Students are encouraged to take electives in related areas, such as studio art, music, history, religion, philosophy and literature (10 courses) (30)

TOTAL (40 courses) (120)

\(1\) Area III is automatically fulfilled because this program is in the art and literature area.
\(2\) Dual majors are required to take two art history electives rather than four, for a total of ten rather than twelve courses to complete the Art History major.

Note: Many art-related professions (especially art conservation and interior design) require specific under-
graduate preparation in addition to a major in art history. To accommodate individual goals, students must choose electives carefully in consultation with the Art History Program Director. Students should note that, although there is no departmental language requirement, a reading knowledge of either French or German (through the intermediate level) is necessary to complete many graduate programs.

**Art History Minor**
FAH 101 Introduction to Art History I (3)
FAH 102 Introduction to Art History II (3)
Ancient and/or Medieval art: one course (3)
Renaissance and/or Baroque art: one course (3)
19th and/or 20th century art: one course (3)
Art History elective: one course (3)
TOTAL (6 courses) (18)

**Music Program**
Jane Cary, Director.

Canisius College offers a major and a minor in music. Courses introduce students to the literature and performance of music, as well as its theory and technology. Music appreciation courses cover a wide range of musical styles and give students the basic materials of music and an introduction to the lives, works and historical settings of the significant composers of the past and present. Through lectures, videos, listening to music examples in class and attendance at concerts, the courses provide students with the basic musical vocabulary and listening skills needed to analyze and intellectually critique music of different cultures and to develop a clear understanding and appreciation of music of different periods.

Music theory courses stress creative and analytical skills, and music technology courses take an in-depth look at current digital music technologies used by musicians and sound designers. In keeping with the most recent technology in music, theory classes and music technology courses are taught in a state-of-the-art MIDI lab using Macintosh computers and Roland keyboards, as well as the software programs Finale and Practica Musica.

For students interested in the performance of music, the department offers music ensembles for academic credit. Private instruction can also be taken for credit in voice, piano, guitar, strings, woodwinds, brass and percussion.

Courses are designed for students of all levels, including majors, minors and non-majors. Classes give students opportunities to think clearly, speak articulately and perform confidently. By careful choice of electives, the major can be integrated with other areas of study, with the option of taking a second major or a minor in another department. For majors, courses will provide them with the skills necessary to pursue music related careers and/or graduate studies in professions including music history, music theory and composition, music education, music performance, musical theater, arts management, music merchandizing, music production, church music and many other fields.

To accommodate individual goals and career objectives, students must choose electives carefully in consultation with the Music Program director.

**Admission**
Prospective majors are required to take a vocal or instrumental performance audition in the spring semester prior to entering Canisius. Additional auditions for transfers into the program will be by special arrangement, as necessary.

**Music Curriculum**
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, II, IV, V, VI, VII, VIII (14 courses) (42)
3. Major course requirements: (10 courses)
   FAM 230 Music Theory I (3)
   FAM 230L Music Theory I Lab (1)
   FAM 240 Music Theory II (3)
   FAM 240L Music Theory II Lab (1)
   FAM 330 Music Theory III (3)
   FAM 330L Music Theory III Lab (1)
   FAM 340 Music Theory IV (3)
   FAM 340L Music Theory IV Lab (1)
   FAM 210 Keyboard Musicianship (3)
   FAM 119 Masterpieces of Music (3)
   Choose one of the following: FAM 117,FAM 118, FAM 120, FAM 121, FAM 122, FAM 123, FAM 124, FAM 130 and FAM 217 (3)
   FAM 225 Music Performance (4 semesters = 2 courses) (8)
   FAM 450 Senior Seminar (3)
4. Music Electives (3 courses)
   Choose from one of the following sequences: (9-11)
   - History and Literature Sequence (3 music literature electives)
   - Performance Sequence (4 additional semesters FAM 225 = 8 credits, plus 1 music elective)
   - Music Education Sequence (FAM 250, FAM 350, plus 1 music elective)
   - Music Technology Sequence (FAM 309, FAM 310, plus 1 music elective)
5. Music Ensembles - 8 semesters (0)
6. Free Electives (9 courses) (27)
TOTAL (40 courses + 8 semesters of music ensembles) (126-128)

**Recommended Schedule**

**FALL**

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**SPRING**

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**Recommended Schedule (continued)**

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**Sophomore Year**

| RST 101 | 3 |
| AS | 3 |
| Free Elective | 3 |
| FAM 210 | 3 |
| FAM 330/330L | 4 |
| FAM 225 | 2 |
| Music Ensemble* | 0 |
| **Total** | 18 |

**Junior Year**

| AS | 3 |
| AS | 3 |
| AS | 3 |
| Music Elective or FAM Elective | 6 |
| FAM 225** | 3 or 2 |
| Free Elective | 3 |
| Music Ensemble* | 0 |
| **Total** | 15 or 14 |

**Senior Year**

| AS | 3 |
| AS | 3 |
| AS | 3 |
| FAM Elective | 3 |
| Free Elective | 3 |
| Music Ensemble* | 0 |
| FAM 225** | 2 |
| **Total** | 15 or 17 |
| **TOTAL** | 126-128 |

* Music Ensemble — Choose from FAM 171, 172, 174, 175, 181, 182, 184, 185. (A student can opt to take music ensemble for (1) credit. If total credit hours exceed 18 credits, overload tuition will apply. This course does not count as a free elective).

** FAM 225 in the junior and senior years is taken as a music elective requirement only if the student elects the performance sequence.

**Music Minor**

| FAM 115 Fundamentals of Music* | (3) |
| FAM 119 Masterpieces of Music | (3) |
| Choose two of the following FAM literature courses: FAM 117, 118, 120, 121, 122, 123, 124, 130, 217 | (6) |
| Music elective: 2 FAM courses (total 6 credits) | (6) |
| Total (6 courses) | 18 |

* If the student has sufficient theory background (as demonstrated by a placement test), one of the music electives may be substituted for FAM 115.

**Note:** A student accumulating three (3) credits in an ensemble or lessons over several semesters can apply those credits as a free elective course. A maximum of two (2) free electives in performance can be accumulated for graduation—one in each of two different performance areas.

**Studio Art Program**

**Michael F. Tunney, S.J., Director.**

Canisius College offers a minor in studio art that prepares serious art students for more advanced study in a comprehensive art school. The minor is also an option for students who would like to experiment in visual media for their own personal enrichment. All course offerings will improve students' conceptual, perceptual and technical art making skills. Foundations minor students will develop a body of work alongside a faculty comprised of working professional artists. All students' art works are displayed throughout the academic year in the Peter A. and Mary Lou Vogt Art Gallery on Lyons Hall's fourth floor. Students who complete the studio art foundations minor will have the knowledge, experience and portfolio necessary for further studies in the visual arts. They will also have a deeper understanding of themselves as human beings.

The heart of the foundations minor consists of three required courses:

FAS 100 Studio Art History (3 credits)
FAS 110 Two-Dimensional Foundations (3 credits)
FAS 115 Three-Dimensional Foundations (3 credits)

Students further explore and deepen their art making skills through a combination of three elective courses (9 credits) in computer design, drawing, painting, photography, printmaking and/or sculpture. The studio art foundations minor totals 6 courses and 18 credit hours.

Prospective minors should consult the Studio Art Program director.

**COURSES: 2005 - 2007**

**FAD/FAH 110 Commonwealth of the Arts**

A study of the relationships among the various arts (music, painting, sculpture, architecture, literature) and how the arts help define and communicate the spirit of their times. (AS III)

**Art History**

FAH 101 Introduction to Art History I (3 credits)
Introduction to formal and cultural analysis of major works of art from Antiquity and the Middle Ages. Covers prehistoric through Gothic art. (AS III, ICD)

FAH 102 Introduction to Art History II (3 credits)
Introduction to formal and cultural analysis of major works of Western art from the Renaissance through the twentieth century. (AS III, ICD)

FAH 103 Survey of Pre-Columbian and Native American Art (3 credits)
Formal and cultural analysis of the arts of Native American Indian peoples, Pre-Columbian cultures of Central and South America, and indigenous peoples of the Pacific Islands. (AS III, ICD)

FAH 107 Introduction to Global Visual Culture (3 credits)
Introduction to the art of Africa, India, Japan, and China. Examines works from various time periods, geographic areas, religious orientations and historical circumstances. (AS III, ICD)

FAH 108 African-American Art in Context (3 credits)
A history of the development of African-American art, from its beginnings in African cultures to contemporary African-American artists working today. (AS III, ICD)

FAH 109 (URS 109) History of Architecture (3 credits)
Formal and cultural analysis of major monuments of global architecture from antiquity to the present. (AS III, ICD)
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FAH 210 (CLS 210)</td>
<td>Ancient Egyptian and Near Eastern Art</td>
<td>3</td>
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<tr>
<td>FAH 213 (CLS 213)</td>
<td>Ancient Art: Greece and Rome</td>
<td>3</td>
</tr>
<tr>
<td>FAH 224</td>
<td>Medieval Art</td>
<td>3</td>
</tr>
<tr>
<td>FAH 245 (HIS 315)</td>
<td>Renaissance Art</td>
<td>3</td>
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<td>FAH 248</td>
<td>Baroque and Rococo Art</td>
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<tr>
<td>FAH 251</td>
<td>United States Art</td>
<td>3</td>
</tr>
<tr>
<td>FAH 259 (WST 259)</td>
<td>Women and Art</td>
<td>3</td>
</tr>
<tr>
<td>FAH 261</td>
<td>Monet and the Age of Impressionism</td>
<td>3</td>
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<td>FAH 262</td>
<td>Modern Art</td>
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<tr>
<td>FAH 263</td>
<td>19th and 20th Century Sculpture</td>
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<td>FAH 265</td>
<td>Contemporary Art</td>
<td>3</td>
</tr>
<tr>
<td>FAH 266</td>
<td>Modern Architecture</td>
<td>3</td>
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<tr>
<td>FAH 271</td>
<td>Art in Buffalo</td>
<td>3</td>
</tr>
<tr>
<td>FAH 320</td>
<td>Museum Studies</td>
<td>3</td>
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<tr>
<td>FAH 374 (COM 374)</td>
<td>Film History</td>
<td>3</td>
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<td>FAH 375 (COM 375)</td>
<td>Film Classics</td>
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<td>FAH 376 (COM 376)</td>
<td>Film Comedy/Film Thriller</td>
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<td>FAH 460</td>
<td>Museum Internship</td>
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<td>FAH 479 (COM 479)</td>
<td>International Cinema</td>
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<tr>
<td>FAH 499</td>
<td>Independent Study in Art History</td>
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**Music**

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<tr>
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<th>Credits</th>
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<tr>
<td>FAM 115</td>
<td>Fundamentals of Music</td>
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<tr>
<td>FAM 117</td>
<td>Canisius and the BPO Experience</td>
<td>3</td>
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<tr>
<td>FAM 119</td>
<td>Masterpieces of Music</td>
<td>3</td>
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<td>FAM 120</td>
<td>19th Century Music</td>
<td>3</td>
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<td>FAM 121</td>
<td>Music of the Classical Period</td>
<td>3</td>
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<tr>
<td>FAM 122</td>
<td>Twentieth Century Classical Music</td>
<td>3</td>
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<td>FAM 123</td>
<td>World Musics</td>
<td>3</td>
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<tr>
<td>FAM 124</td>
<td>Afro-Centric Music</td>
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<tr>
<td>FAM 125</td>
<td>Music Performance</td>
<td>1</td>
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<tr>
<td>FAM 126</td>
<td>Beginning Piano Class</td>
<td>1</td>
</tr>
<tr>
<td>FAM 130</td>
<td>America's Music</td>
<td>3</td>
</tr>
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</table>

For an art history major wishing to pursue an in-depth study of a topic in art history. Prerequisite: junior and senior majors; permission of program director.
FAM 171 Chorale
A mixed-voice singing group that sings repertoire in both the classical and popular styles. (Same as FAM 181 except for "0" credit.)

FAM 172 Jazz Ensemble
An 18-piece jazz ensemble that plays a wide range of music from Count Basie to Maynard Ferguson and everything in between. (Same as FAM 182 except for "0" credit) Prerequisite: Audition and signature of instructor

FAM 174 Chamber Orchestra
Orchestral organization that performs a wide range of orchestral literature from the Baroque period through the 20th century. Concert programs provide students with wide experiences in the orchestral arts. (Same as FAM 184 except for "0" credit)

FAM 175 Concert Band
Campus-wide instrumental ensemble performing a wide variety of standard concert band literature. Performances include a formal concert each semester. (Same as FAM 185 except for "0" credit.)

FAM 180 Chorale
A mixed-voice singing group that sings repertoire in both the classical and popular styles. (Same as FAM 171 except for "1" credit)

FAM 182 Jazz Ensemble
An 18-piece jazz ensemble that plays a wide range of music from Count Basie to Maynard Ferguson and everything in between. (Same as FAM 172 except for "1" credit) Prerequisite: Audition or permission of instructor

FAM 184 Chamber Orchestra
Orchestral organization that performs a wide range of orchestral literature from the Baroque period through the 20th century. Concert programs provide students with wide experiences in the orchestral arts. (Same as FAM 174 except for "1" credit)

FAM 185 Concert Band
Campus-wide instrumental ensemble performing a wide variety of standard concert band literature. Performances include a formal concert each semester. (Same as FAM 175 except for "1" credit)

FAM 210 Keyboard Musicianship
Class instruction in practical keyboard applications including basic keyboard proficiency, harmonization of folk melodies and songs and sight-reading.

FAM 217 Medieval and Renaissance Music
Traces Western art music from its origins in Gregorian chant through the development and refinement of more complex compositions such as the Mass setting and motet. (ASHI, ICD)

FAM 220 Diction for Singers
The study of correct pronunciation for singing in English and foreign languages using the International Phonetic Alphabet.

FAM 221 Opera Workshop
The study and performance of scenes from operatic literature, including stage movement, acting and historical background of operas. Perfect for students who enjoy singing and acting. Prerequisite: Permission of instructor.

FAM 225 Music Performance
Hour-length private lessons, designed for the experienced musician, are offered in piano, voice, classical guitar, woodwinds, brass, strings and percussion.

FAM 230 Theory I
A study of diatonic harmonic progressions typical of 18th and 19th century music. The course includes the analysis of melodic, harmonic, rhythmic and formal aspects of music by composers such as Bach, Mozart, Beethoven and Schubert. Prerequisite: FAM 115 or permission of instructor. Theory I Lab required.

FAM 230L Theory I Lab
Weekly lab instruction in sight-singing and ear-training. Development of aural skills in melodic, harmonic and rhythmic dictation. Includes computer-assisted instruction. Course to be taken concurrently with FAM 230 Theory I.

FAM 230 Theory II: Fundamentals of Four-Part Writing
A study of four-part composing as developed in Europe over the last 1000 years, particularly tonal music associated with Bach, Mozart and Beethoven, which also forms the basis of modern popular music. Prerequisite: FAM 230 or permission of instructor. Theory II Lab required.

FAM 240L Theory II Lab
Weekly lab instruction in sight-singing and ear-training. Development of aural skills in melodic, harmonic and rhythmic dictation. Includes computer-assisted instruction. Course to be taken concurrently with FAM 240 Theory II.

FAM 250 Music for Children
Course provides the backgrounds, models and skills necessary to create musical experiences for the elementary age child.

FAM 256/COM 306 Jazz Appreciation
Historical, musicological, socio-cultural and economic aspects of jazz, America's original art form. Sample the sounds — from Blues to Big Band, Bop to Fusion and beyond.

FAM 309/DMA 309 Digital Music Technology
An in-depth look at current digital music technologies used by musicians, sound designers and multimedia specialists. Students will work with music sequencing software, MIDI and audio plug-ins.

FAM 310/DMA 310 Digital Audio/Music Production

FAM 330 Theory III
19th century styles and analysis of chromatic harmony with the study of works by Beethoven, Schubert, Franck, Wagner and Mahler. Focus on counterpoint skills. Continuation of notation and sequencing software applications. Prerequisite: FAM 240. Theory III Lab required.

FAM 330L Theory III Lab
Weekly lab instruction in sight-singing and ear-training. Development of aural skills in melodic, harmonic and rhythmic dictation. Includes computer-assisted instruction. Course to be taken concurrently with FAM 330 Theory III.

FAM 340 Theory IV
Musical styles, forms and techniques of the 20th century, including impressionism, atonality, serialism, minimalism and electronic applications. Study of selected works by Debussy, Ravel, Stravinsky, Schoenberg, Messiaen, Boulez, Glass and Verne. Continuing study of notation and sequencing software. Prerequisite: FAM 330. Theory IV Lab required.

FAM 340L Theory IV Lab
Advanced lab instruction in sight-singing and ear-training. Includes computer-assisted instruction. Course to be taken concurrently with FAM 340 Theory IV.

FAM 350 Basic Conducting
Development of students' basic conducting skills of beat, pattern and gesture, leadership of musical activities and musicianship including applied ear training and score analysis.

FAM 450 Senior Seminar
An integration of the diverse areas of music into a coherent whole. Course includes supervised reading and research culminating in a writing and/or performance project. Prerequisite: Music majors or permission of program director.

FAM 499 Independent Study in Music
For students wishing to pursue an in-depth study of a specific topic in music. Prerequisite: Permission of the instructor.
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Studio Art</strong></td>
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</tr>
<tr>
<td><strong>FAS 100 Studio Art History</strong></td>
<td>3</td>
<td>Combines studio art drawing, the elements and principles of design and art historical appreciation of works from prehistoric caves to postmodern computers. Regular drawing, classroom study and museum transcriptions comprise student assignments.</td>
</tr>
<tr>
<td><strong>FAS 110 Two-Dimensional Foundations</strong></td>
<td>3</td>
<td>Introduction to the formal and material fundamentals of an art studio. Exercises follow a progression through the traditional elements of line, value, composition and color theory. (AS III)</td>
</tr>
<tr>
<td><strong>FAS 111 Studio Drawing I</strong></td>
<td>3</td>
<td>Investigation of the formal, material and historical fundamentals of drawing. Exercises with dry and wet media progress through two- and three-dimensional renderings of still life, architecture, landscape, portraits, the human figure and abstraction. (AS III)</td>
</tr>
<tr>
<td><strong>FAS 112 Studio Painting I</strong></td>
<td>3</td>
<td>Investigation of the formal, material and historical fundamentals of painting. Exercises in watercolor and acrylic paint progress through grisaille, monochromatic, limited palette and full palette treatments of still life, architecture, landscape, portraits, the human figure and abstraction. (AS III)</td>
</tr>
<tr>
<td><strong>FAS 113 Studio Design I</strong></td>
<td>3</td>
<td>Investigation of the formal elements and principles of design. Computer-based assignments will involve students in practical and creative solutions to design situations. (AS III)</td>
</tr>
<tr>
<td><strong>FAS 114 Introduction to Still Photography</strong></td>
<td>3</td>
<td>Basic techniques of photography explored through the use of 35mm cameras and film. Emphasis on the development of black-and-white film and the visualization process of taking pictures. Prerequisite: 35mm camera with manual controls.</td>
</tr>
<tr>
<td><strong>FAS 115 Three-Dimensional Foundations</strong></td>
<td>3</td>
<td>Assignments increase student perception of the three-dimensional world and methods effecting their interpretation. Assignments highlight 3-D composition, object as process, object as texture, object as presentation, object as event, object as ordinary material. (AS III)</td>
</tr>
<tr>
<td><strong>FAS 117 Sculpture I</strong></td>
<td>3</td>
<td>Emphasis on traditional techniques. Assignments cover specific materials (plaster, wood, styrofoam, metal, paper) and particular techniques (armature construction, wood working, riveting, mold making, paper mache.). (AS III) Prerequisite: Rudimentary understanding of design; portfolio review by instructor.</td>
</tr>
<tr>
<td><strong>FAS 119 Clay Studio</strong></td>
<td>3</td>
<td>Course stresses the basic processes of clay modeling and mold making in plaster. Beginning with hand-built sculptural form, students progress to realistic clay modeling that will be completed by making a mold and casting in plaster.</td>
</tr>
<tr>
<td><strong>FAS 120 Color</strong></td>
<td>3</td>
<td>Combines in-depth color theory with actual design and composition making learned through traditional studio set-ups and contemporary computer applications.</td>
</tr>
<tr>
<td><strong>FAS 122 Travel Photography</strong></td>
<td>3</td>
<td>Learn how to navigate location shoots and capture the spirit of the specific culture in front of you. Find the right location shots, maximize the light situations regardless of climate or time of day and learn proper ethical behavior for photojournalists. Review basic camera operations for both film and digital picture taking. Explore locales throughout WNY and the Finger Lakes region.</td>
</tr>
<tr>
<td><strong>FAS 131 Digital Photography</strong></td>
<td>3</td>
<td>Reviews basic photo skills and handling of film and digital cameras. Scanning film and prints and manipulation of images in Photoshop are all concerns as students develop a personal aesthetic and portfolio. Prerequisites: Intro Photo (FAS 114) or approval of instructor, digital or 35mm camera with manual controls.</td>
</tr>
<tr>
<td><strong>FAS 136 Color Photography</strong></td>
<td>3</td>
<td>Explores the basic concepts and techniques of color photography using both traditional silver-based media and the digital studio.</td>
</tr>
<tr>
<td><strong>FAS 140 Experimental Printmaking Techniques</strong></td>
<td>3</td>
<td>Introduces students to the history of printmaking as an art form. Students will explore alternative methods of mark-making and hand-printing without the use of toxic chemicals, acids or presses. This process incorporates drawing and design skills while exploring color relationships via the intrinsic nature of printmaking.</td>
</tr>
<tr>
<td><strong>FAS 141 Printmaking I</strong></td>
<td>3</td>
<td>Introduction to the general processes of relief printing, monoprinting and fundamental printmaking techniques. Prerequisite: 2D or Studio Drawing I.</td>
</tr>
<tr>
<td><strong>FAS 142 Monotype Techniques</strong></td>
<td>3</td>
<td>Introduction to and concentration on monotype, a combination of printmaking and painting. This process utilizes drawing, painting and design skills. Prerequisite: 2D, Drawing I or Painting I preferred.</td>
</tr>
<tr>
<td><strong>FAS 151 Personal and Political Art</strong></td>
<td>3</td>
<td>Course engages students in the interplay between personal modes of artistic expression and political concerns in art. Contemporary mixed media and installation art will be primary considerations. Drawing, painting and collage will be the principal media.</td>
</tr>
<tr>
<td><strong>FAS 153 Landscape Painting</strong></td>
<td>3</td>
<td>Photo-based and plein air painting will be the focus of this course. Students will also consider critical issues and trends in landscape painting and representation. Issues will include urban vs. natural scenes, panoramic and close-up composition-making, and imagined, abstracted and perceptually observed subject matter. Prerequisite: 2D, Drawing I or Painting I preferred.</td>
</tr>
<tr>
<td><strong>FAS 202 Studio Drawing II</strong></td>
<td>3</td>
<td>Deals with conceptual and perceptual issues of representation. Emphasis is on finding a more personal and creative vision. Artwork, readings, gallery visits, critiques and discussions included. Prerequisites: 2D and Studio Painting I.</td>
</tr>
<tr>
<td><strong>FAS 216 (COM 226) Intermediate Photography</strong></td>
<td>3</td>
<td>In-depth study of advanced methods of photography including the development of color positive and negative film and the application of artificial light in the studio and field. Prerequisite: FAS 114 or portfolio review with instructor; 35mm camera with manual controls.</td>
</tr>
<tr>
<td><strong>FAS 222 Studio Painting II</strong></td>
<td>3</td>
<td>Students consider further technical and conceptual issues of representation and abstraction. Goal is a more personal and creative vision. Artwork, readings, gallery visits, critiques and discussions included. Prerequisites: 2D and Studio Painting I.</td>
</tr>
<tr>
<td><strong>FAS 224 Figure Painting</strong></td>
<td>3</td>
<td>Students work primarily from models for portrait and full figure painting compositions. Traditional, technical issues are stressed. Conceptual and contemporary issues concerning the human figure are also significant considerations. Prerequisite: 2D, Drawing I or Painting I preferred.</td>
</tr>
<tr>
<td><strong>FAS 499 Independent Study in Studio Art</strong></td>
<td>3</td>
<td>For students wishing an in-depth study of a specific area of studio art. Prerequisites: Three previous studio art courses; permission of instructor and studio art program director. Limit 2 students per instructor.</td>
</tr>
</tbody>
</table>
The History Department offers a series of wide-ranging courses at both the introductory and advanced levels that are designed to acquaint the student with the richness of human historical experience and to introduce the methodologies of the historian's craft. Through this intellectual endeavor, the student gains an appreciation of the inter-relatedness of human activity in social, political, economic, cultural and intellectual affairs. An awareness of the impact of time and the importance of chronological milieu is also achieved. Through the study of the past, one develops a more comprehensive understanding of the present and insight into the values of human experience.

Area IV courses furnish students with a general knowledge of the history and traditions of the major nations of the modern world and an appreciation of the fundamental trends that shape the world in which they live. These courses also provide the student with an intellectual and chronological framework within which study in other disciplines can be placed to obtain increased understanding of those content areas.

Upper-level courses deal with a wide variety of specialized areas of historical inquiry, including non-Western, Ancient, European and American development. Some courses focus on major national or geographic areas, while others emphasize period, topical, or thematic approaches. The upper-level courses provide the student with an opportunity for further development of their historical understanding and critical thinking. By encouraging social context and historical perspective, these courses enable the history major to draw upon the great traditions of civilizations in the attainment of the primary objective of liberal education: the analysis and discrimination of reality and values.

The History Department offers a departmental honors program consisting of four sequential seminars in the junior and senior years (HIS 401, HIS 402, HIS 410, HIS 411). These courses are specifically designed to develop the research, writing and analytical skills necessary for success in graduate school or law school. Students who complete these four courses with a 3.25 average and a 3.00 average in all of their history courses graduate with Honors in history.

History offers pre-professional experience for the student through emphasis on data analysis, trend observation, critical thinking, value discrimination and clarity of expression. The content and skills of the history major program are useful for those anticipating careers in law, communications media, journalism, library science, government service, teaching, or managerial positions in business or industry.

History Major

To graduate with a bachelor of arts in history, a student must complete a minimum of twelve courses (36 credit hours) in history, of which no more than four (12 credit hours) may be taken at the 100 level. Students who are dual majors or who transfer into the history program at a late stage in their college career may petition the chair of the History Department for a reduction in the number of courses they need to satisfy the requirement for the major to ten courses (30 credit hours). Further information may be obtained from departmental advisors or the department chair.

Admission

Admission to the history major depends upon the applicant having attained a grade of at least "C" in six hours of Area IV courses and in ancillary subjects.

History Curriculum

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, II, III, V, VI, VII, VIII (14 courses) (42)
3. Major course requirements: (12 courses) (36)
4. Electives (10 courses) (30)
TOTAL (40 courses) (120)

1 Area IV is automatically fulfilled because this program is in the area of history. To satisfy the Area VIII requirement, the History Department strongly recommends competence in an ancient or modern foreign language through the intermediate level.
2 Among the courses that satisfy this requirement are HIS 103, 104, HIS 106, HIS 107, HIS 109, HIS 111, HIS 131, and HIS 170 at the introductory level, and HIS 308, HIS 311, HIS 312, HIS 313, HIS 314, HIS 315, HIS 316, HIS 317, HIS 318, HIS 319, HIS 320, HIS 332, HIS 337, and HIS 371, 372 at the upper level.
The History minor requires a student to complete the following sequence of courses for a total of seven courses (21):

Survey courses: two or three 100-level courses selected from Area IV courses in American, European, Classical, Asian, or Latin American history (6 or 9)

Upper-level courses: four or five history courses (200-499). (12 or 15)

Distribution: The seven courses must include at least one course in American history, one in European history, and one in Third World history. At least one of the seven courses must concentrate on the period before 1800.

Note: With the chair's permission, transfer students, and students with an exceptional secondary background in history, may be allowed to substitute upper-level courses for the 100-level requirement.


HIS 103 (CLS 103) Greek History to 323 B.C. 3
Social, political and intellectual history of the Greeks from the end of the Bronze Age to the Hellenistic period. (AS IV) (ICD)

HIS 104 (CLS 104) Roman History: Origins to Late Antiquity 3
Social, political and intellectual history of Rome from the foundation of the city to Late Antiquity. (AS IV) (ICD)

HIS 106 The Medieval World 3
The development of a distinctive European civilization between 500 and 1500. Emphasis on Europe's contacts and conflicts with the "competing" cultures of Byzantium and Islam. (AS IV) (ICD)

HIS 108 History of Modern Europe since 1815 3
The major political, economic, social and intellectual currents in Western Civilization from 1815 to the present. (AS IV) (ICD)

HIS 109 History of Asia to 1800 3
Comparative study of civilizations, cultures, religions and institutions of the Far East and South Asia. (AS IV) (ICD)

HIS 110 History of Asia since 1800 3
The various independence and revolutionary movements and their evolution into the modern nation-states of Asia. (AS IV) (ICD)

HIS 111 Men and Ideas in History 3
Role of ideas in historical change. Relationship between the ideas of a particular period and the social, political and economic forces that helped to shape them. (AS IV) (ICD)

HIS 113 The Twentieth Century 3
Major political, economic, social and intellectual currents in Europe since 1900. (AS IV) (ICD)

HIS 123 History of the United States: The Colonial Period to Reconstruction 3
Introduction to major themes of American history through the Civil War including: the Columbian Exchange and colonization, American Revolution, paradox of freedom and slavery, emergence of a market economy, secession and Reconstruction. (AS IV)

HIS 124 History of the United States: 1877 to the Present 3
Industrialization and urbanization of the United States with the accompanying social, economic and political problems; America's emergence as a major power in world affairs. (AS IV)

Recommended Schedule

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<th>FALL</th>
<th>SPRING</th>
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Freshman Year

<table>
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Junior Year

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<td>Elective</td>
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Senior Year

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<td>Total</td>
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TOTAL 120

Dual Majors

The Departments of History and Teacher Education have developed a five-year Dual Degree Program in History and Social Studies Education that will enable a student to receive a bachelor of arts degree in history, a master of science degree in education (social studies), and New York State Certification in social studies at the secondary level. This program has been certified by the New York State Department of Education. The two departments also offer dual majors in History and Social Studies Education at the undergraduate level for students interested in teaching at either the early childhood or adolescent level. For further information, contact Dr. Nancy Rosenbloom (History) at 888-2689, Dr. Larry Jones (History) at 888-2686, or Dr. James McDonnell (Education) at 888-2547.

History Minor

The History minor complements majors in other academic departments by providing students with exposure to the study of history that is both comprehensive and intensive.

Students majoring in various disciplines such as English, communications, psychology, political science and philosophy can often benefit from pursuing a minor in history. Those students who hope to pursue graduate studies in the aforementioned disciplines, as well as law, would be well-advised to consider a history minor.

The History minor requires a student to complete the
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>HIS 131 Latin American History to 1830</td>
<td>Pre-Columbian Indian civilizations. Conquest and colonization. Economy, society, and the Church. Eighteenth century reforms and independence.</td>
<td>3</td>
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<tr>
<td>HIS 132 Latin American History since 1830</td>
<td>Overview of economy and society. Upheavals and revolutions in Argentina, Brazil, Colombia, Cuba, Chile and Mexico.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HIS 170 (PSC 110) Western Political Tradition I</td>
<td>See PSC 110.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HIS 171 (PSC 111) Western Political Tradition II</td>
<td>See PSC 111.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HIS 211 (WST 340) Women in the Western World</td>
<td>Comparative history of women in Europe, Britain and America from Renaissance to present. Deals with changing role of women in society, politics and the economy and on the development of feminism as an intellectual and political force.</td>
<td>3</td>
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</tr>
<tr>
<td>HIS 200 Historical Geography</td>
<td>Overview of African American history from African roots and American enslavement to today's hip-hop music. Emphasis is on black survival and strategies for liberation. Team learning course.</td>
<td>3</td>
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</tr>
<tr>
<td>HIS 201 History of Modern Germany</td>
<td>A broad survey of modern German history from the end of the Middle Ages and Protestant Reformation through the unification of Germany in 1871, two world wars, the rise of Nazism and the Holocaust, to the fall of the Berlin Wall and German reunification.</td>
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<tr>
<td>HIS 240 Wars of Latin America</td>
<td>Wars of independence and major conflicts of the nineteenth century. Military history of Mexican, Cuban and Nicaraguan revolutions. Border clashes and guerilla insurgencies of the twentieth century. Argentina’s war with England.</td>
<td>3</td>
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</tr>
<tr>
<td>HIS 255 African American History</td>
<td>Overview of African American history from African roots and American enslavement to today's hip-hop music. Emphasis is on black survival and strategies for liberation. Team learning course.</td>
<td>3</td>
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<tr>
<td>HIS 260 - Canada and the World</td>
<td>A survey of Canada's place in world history from the colonial period to the present. Among the topics examined are Native-Canadians, the British-French rivalry for North America, Canada’s emergence as a nation within the British empire, Canada-US relations and the modern multicultural Canadian state.</td>
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<tr>
<td>HIS 300 Historical Geography</td>
<td>Examines the interaction between the historical process and human, physical and cultural geography. Recommended for history and social studies education majors.</td>
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<tr>
<td>HIS 301 History of Sports in America</td>
<td>The historical development and impact of sports, especially spectator sports, in the United States since World War II.</td>
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<tr>
<td>HIS 302 Atlantic World</td>
<td>The social, cultural, political, and economic interactions of the three main geographic groups - American, African, and European will be identified and analyzed. Special attention will be paid to the trans-Atlantic Slave Trade and the development of new societies in the Western World.</td>
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<tr>
<td>HIS 306 American Religious History</td>
<td>Overview of major thoughts, movements and personalities of American Religious History from colonial era to present. Catholicism used as a model, focusing on themes of immigration and Americanization as central to understanding religious landscape of the U.S.</td>
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<tr>
<td>HIS 308 (CLS 308) Pagans and Christians</td>
<td>See CLS 308. (AS VI) 2005-2006 only</td>
<td>3</td>
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</tbody>
</table>
HIS 340 Films of the Violent Century
The major events of the 20th century, including World Wars I and II, the Russian Revolution, the Great Depression, the rise of Fascism and the Vietnam War.

HIS 341 Europe: The Violent Decade 1936-48
The course will examine in detail the Spanish Civil War, The Rise of the Radical Right in Central & Eastern Europe, Soviet Totalitarianism, World War II and its aftermath.

HIS 345 (PSC 357) Soviet Union and After
Political, economic and foreign policies of the Communist regime. 2005-2006 only

HIS 346 Age of European Fascism, 1919-45
A comparative analysis of fascist movements and regimes in Europe between the two world wars with particular attention devoted to fascist Italy and Nazi Germany. 2005-2006 only

HIS 347 (PSC 347) The History of Marxism
History of Marxism as an intellectual tradition, with emphasis on writings of Marx and Lenin, from the nineteenth to the twentieth century. (AS V)

HIS 350 (PSC 350) 20th Century Eastern Europe
Ethnic, linguistic and geographic origins. Emphasis on social, political, economic, and cultural developments since 1918. 2006-2007 only

HIS 355 Chinese Culture and Civilization Before 1900
The course traces the roots of Chinese culture and civilization from the ancient period to the end of the Imperial era. Among the topics considered are Confucianism, the Dynastic cycle and intellectual and scientific advances. 2005-2006 only

HIS 356 Twentieth Century China
Examines the evolution of Chinese society from the imperial era, through the world wars, the Communist Revolution and the re-emergence of China as a major economic and political power.

HIS 358: Traditional Japan
This course examines the roots of Japanese history and culture from ancient times. Among the topics studied are early Japanese religion and society, the court culture of the Heian era, Japanese feudalism and the transition to the modern world in the Tokugawa period. As well as history, a strong emphasis is placed on Japanese artistic and literary traditions.

HIS 359: History of Japan: 1868 - Present
Development of modern Japan from Restoration of 1868 to the present.

HIS 361 (CRJ 361) Origins of American Constitutionalism
Sources of American political ideology and constitutional theory in the American experience from the 17th century beginnings until the Civil War. Recommended for pre-law students.

HIS 362 (CRJ 362) The Constitution in an Age of Crisis
American Constitutional theory and practice from Civil War to present. Emphasis on Supreme Court development, economic relationships, civil liberties, civil rights and criminal justice.

HIS 365 (PSC 365) U.S. - Latin American Relations
Since 1898
Occupations of Cuba, Dominican Republic, Haiti, Central America; interventions in Columbia, Mexico, Panama, Guatemala. Response to Cuban and Nicaraguan revolutions and South American military dictatorships.

HIS 367 The Old South
Investigation of the American South from colonization to the Civil War. Special attention will be paid to those factors which seem to make the South a distinct region, especially the peculiar institution of slavery.

HIS 368 Native American History
History of Native Americans from Pre-Colonial era to the present day.

HIS 370 (CRJ 370) Crime and Punishment
Infamous crimes from the Puritan witch-hunts to today's murder trials. Changing trends in punishments from chain gangs and public hangings to juvenile courts. Creation of prisons, asylums and police forces.

HIS 371 Colonial America
Examination of British North America including the nature of the colonists, their contact with other peoples, the origins of slavery and the creation of a distinct American society.

HIS 372 American Revolution
Exploration of the political, social and constitutional issues in the era of American independence. In particular we will try to answer the question, "Was the American Revolution truly revolutionary?"

HIS 373 (URS 373) Urban Portraits: Topics in American Urban History
An exploration of six cities in critical periods of the development of American urban culture. Philadelphia and New York City, 1660-1880; Chicago and New Orleans, 1880-1920; and Atlanta and Los Angeles, 1870-1968. 2006-2007 only

HIS 376 The American Military Tradition
Examination of major conflicts from the Revolutionary War to the Gulf War. Nature of warfare in the Civil War and in World War II. The citizen soldier and the rise of the professional army. Defense consolidation of the three services.

HIS 378 Harlem Renaissance
Explores African American history from emancipation to the rise of a "New Negro" in the Harlem Renaissance. Special attention is paid to violence (esp. lynchings), segregation, the Great Migration and a new sense of racial pride after World War I.

HIS 379 Video Killed the Radio Star: America in the 1980's
From Pac-Man to Madonna to the Cosby Show, this course will examine cultural icons of the Reagan era. We will investigate the role of mass media in shaping our lives, through TV, film, advertising and other means.

HIS 381 (URS 381) History of Buffalo
Development of Buffalo as a city through its 150-year history. Emphasis on social and cultural aspects of Buffalo's history and the emergence of American pluralism.

HIS 382 (URS 382) New York State History
History of the Empire State will stress social and cultural development from the Iroquois background to the present.

HIS 383 America in the Progressive Era
Explores American social and political reform around the turn of the century (1890-1920) with particular emphasis on: conflicts that accompanied rapid urbanization and industrialization, debates on democracy, freedom and the role of government, the rise of the "New Woman," modernism in art and literature and World War I.

HIS 388 Age of Rock 'n' Roll
Covers the supposedly "quiet" period after World War II. Topics include the baby boom, the Soviet Menace, atomic espionage, the Hollywood blacklist, the rise of television, Elvis Presley and teen culture, desegregation and the Beats. 2006-2007 only

HIS 389 1960's
Treats one of the most tumultuous decades in American history. Topics include the Kennedys and Camelot, the civil rights movement, the Vietnam war, student protest, the Beatles, the women's movement, the drug culture, "free love," race riots and domestic terrorism. 2005-2006

HIS 390 Civil Rights Movement
Examines the African American movement to end racial injustice. Focus is on dramatic events since World War II, black leaders and organizations, white resistance and the federal government's response. The impact and the legacy of the movement will be considered.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIS 393</td>
<td>The Making of Modern Africa</td>
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<td></td>
<td>Development of modern Africa from the diverse societies of precolonial Africa through the impact</td>
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<td>of imperialism to an examination of the problems facing modern African states. 2005-2006 only</td>
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<tr>
<td>HIS 394</td>
<td>(PSC 397) Contemporary Middle East</td>
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<td>History of Middle East from the last days of the Ottoman Empire through mandate system established</td>
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<td>by Versailles Peace Conference to struggle for independence during and after World War II. 2006-2007 only</td>
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<tr>
<td>HIS 395</td>
<td>(WST 341) History of American Women</td>
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<td></td>
<td>Examines the social experiences of American women from colonial times to the present with particular</td>
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<td>emphasis on work, marriage and the family, politics, and reform.</td>
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<tr>
<td>HIS 396</td>
<td>(URS 390) Politics and Society in American Film</td>
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<td></td>
<td>Explores how film illuminates American social and political life with attention to the origins of</td>
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<td>the motion picture industry, the struggle over censorship and the challenges of political</td>
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<td>radicalism. Focus on classic films that reflect immigration and urbanization, women and the family,</td>
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<td>civil rights and political leadership. 2005-2006 only</td>
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<td>HIS 399</td>
<td>American Diplomatic History</td>
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<td></td>
<td>An overview of American foreign policy from the Revolutionary War to the Gulf War. Emphasis on</td>
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<td>the imperial period since 1898.</td>
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<td>HIS 401</td>
<td>Seminar: Introduction to Historical Research</td>
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<td></td>
<td>Methods of historical research and criticism, including consideration of basic bibliographical</td>
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<td>and reference works, note-taking, and evaluation of sources. Research paper required.</td>
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<td>Prerequisite: History honors students and others with permission of chair.</td>
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<tr>
<td>HIS 402</td>
<td>Seminar: Historiography</td>
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<td></td>
<td>A study of the major historians of Western civilization, emphasizing the student’s development of a</td>
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<td>meaningful personal philosophy of history. Prerequisite: History honors students and others with</td>
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<td>permission of chair.</td>
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<tr>
<td>HIS 410</td>
<td>Senior Honors Colloquium</td>
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<td></td>
<td>Reading course organized around central theme that varies from semester to semester. Deals with</td>
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<td>American and European history and occasionally with history of Third World. Satisfies requirement</td>
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<td>for graduation with departmental honors in history. Prerequisite: Consent of instructor or</td>
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<td>department chair.</td>
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<tr>
<td>HIS 411</td>
<td>Seniors Honors Thesis</td>
<td>3</td>
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<tr>
<td></td>
<td>Research and writing of a thesis to satisfy requirements for graduation with Honors in History.</td>
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<td>Prerequisite: Consent of the instructor and/or permission of the chair.</td>
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<tr>
<td>HIS 413</td>
<td>(HON 313) Representations of the Holocaust in Film and Literature, Art and Music</td>
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<td></td>
<td>A multi-disciplinary study of how the Holocaust has been represented in works of art, film literature</td>
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<td>and music in Europe, America and Israel. Examines the literary works and first-person testimony</td>
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<td>of Holocaust survivors, as well as cinematic representations of the Holocaust from 1945 to the</td>
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<td>present. 2005-2006 only</td>
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<tr>
<td>HIS 454</td>
<td>(HIS 504) Main Themes in Global History</td>
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<td></td>
<td>Historiography and methodology of global history. Relationship between the West and the world,</td>
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<td></td>
<td>especially Asia, Africa and the Middle East. Teaching global history at the secondary level:</td>
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<td></td>
<td>pedagogy, instructional techniques and multi-media technology.</td>
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<tr>
<td>HIS 498</td>
<td>Internships</td>
<td>3</td>
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<tr>
<td></td>
<td>Internships are currently available with a United States congresswoman or senator, the Theodore</td>
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<td>Roosevelt Inaugural Site Foundation and the Buffalo and Erie County Historical Society.</td>
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<td></td>
<td>Prerequisite: Consent of the instructor and permission of the chair.</td>
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<tr>
<td>HIS 499</td>
<td>Independent Study</td>
<td>3</td>
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<td></td>
<td>Offers the opportunity to conduct a program of independent readings and/or research on a topic of</td>
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<td>the student’s choice under the supervision of a member of the History Department.</td>
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<td></td>
<td>Prerequisite: Consent of instructor and permission of chair.</td>
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<tr>
<td>HIS 502</td>
<td>Main Themes in American History</td>
<td>3</td>
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<tr>
<td></td>
<td>Historiography and methodology of American history from the colonial times to the present.</td>
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<td></td>
<td>Course will primarily emphasize such themes as revolution, identity and the struggle for equality</td>
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<td>but will also include pedagogy and instructional strategies. Prerequisite: Permission of the</td>
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<td></td>
<td>instructor or graduate status.</td>
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</tbody>
</table>
The humanities major includes those branches of learning that are concerned with human thought and experience in history, language and literature, philosophy, religious studies, fine arts and music. Its goal is to lead the student to appreciate those aspects of his or her own culture, as well as their relationship to the cultures of other times and places. Although the humanities major is not oriented toward a particular career, its emphasis on critical understanding and disciplined reflection prepares a student for later training in many fields of employment including law, government, journalism, teaching and human services.

Humanities Curriculum
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, II, IV, VI, VII (10 courses) (30)
3. Major course requirements: (19 courses)
   English: two 200 level courses plus two 300-400 level courses in a major literary figure (12)
   History: two 300/400-level courses (6)
   Philosophy: four 300/400-level courses (12)
   Religious Studies: two 300/400-level courses (6)
   Modern Language: two courses in Modern Language or literature in Translation and/or Civilization (6)
   Humanities: two courses, to be selected from Art History, History, Music, Religious Studies, PHI 300 (6)
   Concentration: three additional 300/400-level courses in one of the following departments: English, History, Philosophy, Religious Studies, Modern Language (9)
4. Electives (7 courses) (21)
TOTAL (40 courses) (120)

Recommended Schedule

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<tr>
<th></th>
<th>FALL</th>
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<tbody>
<tr>
<td>Freshman Year</td>
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<tr>
<td>ENG 101</td>
<td>3</td>
<td>ENG 102</td>
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<td>Elective</td>
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<tr>
<td>Sophomore Year</td>
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<tr>
<td>RST 101</td>
<td>3</td>
<td>PHI 101</td>
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<tr>
<td>English elective 200 level</td>
<td>3</td>
<td>English elective 200 level</td>
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<tr>
<td>Modern Language elective</td>
<td>3</td>
<td>Modern Language elective</td>
<td>3</td>
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<tr>
<td>Humanities elective</td>
<td>3</td>
<td>Religious Studies elective</td>
<td>3</td>
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<tr>
<td>Elective</td>
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<td>Elective</td>
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<td>Total</td>
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<tr>
<td>Junior Year</td>
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<tr>
<td>English elective</td>
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<td>Religious Studies elective</td>
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<tr>
<td>Philosophy elective</td>
<td>3</td>
<td>Philosophy elective</td>
<td>3</td>
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<tr>
<td>History elective</td>
<td>3</td>
<td>Humanities elective</td>
<td>3</td>
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<tr>
<td>Concentration elective</td>
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Associate of Arts Degree

The associate of arts degree in humanities program requires the completion of 60 credit hours of coursework. The program has two basic purposes: (1) It offers an immediate goal for students seeking a general introduction to the humanities (history, art, literature, philosophy, religious studies, classics and languages); and (2) It provides a basic foundation for those who wish to go on for a bachelor's degree.

The program contains a second track designed for the prospective business major. Students who plan baccalaureate studies in the future are encouraged to choose the track that fits their individual goals. If a student remains at Canisius College, all of the coursework in the associate degree program is transferable and applicable to the bachelor's program.

Humanities Curriculum: (Associate Degree)
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: II, IV, VII, VIII.1 One course from each of these areas: I, V, (10 courses) (30)
3. Major course requirements: (6 or 4 courses)
   Humanities Track —
   English: two 200 level courses (6)
   Religious Studies: two courses (6)
   Humanities: two courses, to be selected from Art History, History, Music, Religious Studies, PHI 300 (6)
   Business Track —
   Art and Literature: two Area III courses (6)
   Religious Studies: two courses (6)
4. Electives
   Humanities Track —
   (0 course) (0)
   Business Track —
   (2 courses) (6)
TOTAL (20 courses) (60)

1 Areas III, V, and VIII are fulfilled because this program includes courses in those areas.
### Recommended Schedule

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<thead>
<tr>
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<th>FALL</th>
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<tbody>
<tr>
<td><strong>Freshman Year</strong></td>
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</tr>
<tr>
<td>ENG 101</td>
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<tr>
<td>Total</td>
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|             |      |        |
| **Sophomore Year** |      |        |
| PHI 101     | 3    | English elective [AS III] 3 |
| English elective [AS III] | 3 | Humanities elective [Elective] 3 |
| Humanities elective [Elective] | 3 | Religious Studies elective 3 |
| Religious Studies elective | 3 | AS 3 |
| AS          | 3    | 3      |
| Total       | 15   | Total  | 15     |

**TOTAL**  60

### Other Associate’s Degree Regulations

The basic residency requirements for A.A. degrees is 30 credit hours, at least 15 of which must be completed in traditional classroom situations. No more that 30 hours may be transferred from another institution. Not all courses at other institutions are applicable to the associate degree, and transfer students are required to have a transfer evaluation completed by the college registrar.
The International Relations program at Canisius College is a multidisciplinary program that is anchored in the Departments of History, Modern Languages and Political Science but also includes courses in international business, economics, religious studies, philosophy and other academic disciplines. The goals of the program are to provide the International Relations major with a basic understanding of the issues, functions and theories of the international system and to cultivate skills in research, writing, critical thinking and oral presentation that are necessary for success in a career in the fields of international affairs, international business, law, education and academia. Each student’s program is structured to maximize options after graduation. Completion of the major program will lead to a bachelor of arts degree in International Relations.

Admission
The International Relations major and minor are open to any student who has completed PSC 140 (Introduction to International Relations) with a minimum grade of C. A minimum overall average of 2.00 in all courses taken to complete the major or the minor is required for program completion.

International Relations Curriculum
All International Relations majors must take a core of eight courses in history, political science and economics and eight electives that have been approved by the International Relations Program Advisory Council for major credit. These electives must include at least one course in the field of international business. In addition, all International Relations majors must demonstrate proficiency in a modern foreign language through the advanced level and take at least one 300-level foreign language course beyond the advanced level. All International Relations majors must also satisfy an international experience requirement that includes but is not limited to study abroad in a foreign university or an approved short-term program.

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, III, V, VI, VII¹ (10 courses) (30)

3. Major course requirements: (17 courses)
Choose one of the three course groupings (6)

Group 1
HIS 107 History of Modern Europe to 1815 (3)
HIS 108 History of Modern Europe since 1815 (3)
or

Group 2
HIS 109 History of Asia to 1800 (3)
HIS 110 History of Asia since 1800 (3)
or

Group 3
HIS 131 Latin American History to 1830 (3)
HIS 132 Latin American History since 1830 (3)
ECO 101 Principles of Macroeconomics (3)
PSC 140 Introduction to International Relations (3)
PSC 150 Introduction to Comparative Politics and Government (3)
HIS 300 Historical Geography (3)
HIS 299 U.S. Diplomatic History (3)
or
PSC 245 U.S. Foreign Policy (3)
PSC 442 Seminar in International Relations (3)
Business: one 300 or 400-level international business course (3)

Major electives: seven courses chosen from approved list in Economics, Finance, History, International Relations, Modern Languages, Political Science and Religious Studies (15)
Modern language training through the advanced level (6)
300-level course in a Modern Foreign Language (3)

4. Electives: Modern language training beyond the advanced level is strongly recommended for those students contemplating graduate studies in international relations. Students are also encouraged to take QNT 101 or computer skills workshops. (9 courses) (27)
TOTAL (40 courses) (120)

¹Area II, Area IV, and Area VIII requirements in the core curriculum are automatically satisfied by courses that International Relations majors take in meeting their major requirements.
²A student may substitute HIS 113 (The Twentieth Century) for HIS 108. A student in the All-College Honors Program may substitute HON 220 (Problems in Modern European History) for HIS 108.
³A student in the All-College Honors Program may substitute HON 223 (Revolutions in Latin America) for HIS 132.
Recommended Schedule for a Major in International Relations:

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<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman Year</td>
<td></td>
</tr>
<tr>
<td>ENG 101</td>
<td>ENG 102</td>
</tr>
<tr>
<td>PSC 140</td>
<td>PSC 150</td>
</tr>
<tr>
<td>HIS 107 or HIS 109</td>
<td>HIS 108 or HIS 110</td>
</tr>
<tr>
<td>or HIS 131</td>
<td>or HIS 132</td>
</tr>
<tr>
<td>Modern Language 215</td>
<td>Modern Language 216</td>
</tr>
<tr>
<td>ECO 101</td>
<td>AS</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

Sophomore Year

| PHI 101      | RST 101     |
| HIS 300      | HIS 399 or PSC 245 |
| Modern Language 300 | IR Major Elective |
| IR Major Elective | AS          |
| AS           | Free Elective |
| Total        | Total       |
| 15           | 15          |

Junior Year

| IR Major Elective | IR Major Elective or 300-400 level Business |
| AS                | AS                        |
| Free Elective    | Free Elective             |
| Total            | Total                     |
| 15               | 15                        |

Senior Year

| IR Major elective | PSC 442 |
| AS                | IR Major elective |
| AS                | AS       |
| Free Elective    | Free Elective |
| Total            | Total    |
| 15               | 15       |

TOTAL 120

Tracks within the International Relations Major

Within the International Relations major a student may pursue one of four distinct tracks in International Business, International History, International Politics, and Language and World Culture. Or a student may opt to pursue none of these tracks but fulfills the program major requirements listed above without concentrating in any particular area of the program. If a student chooses to pursue one of these four tracks, this will affect his or her choice of major electives. A student pursuing one of these tracks would still be required to take a modern foreign language through the advanced level and one course in that language beyond the advanced level and to satisfy the international experience requirement. For further information, contact the director of the International Relations Program.

International History: A student pursuing the track in International History would take in addition to the eight IR core courses listed above 1) five history courses in the field of international history approved as IR major electives by the International Relations Program Advisory Council, one course in international business, one IR major elective in either international business or political science, and one course in any field except foreign language as either an IR major elective or a designated world culture course.

International Business: A student pursuing the track in International Business would take in addition to the eight IR core courses listed above 1) five courses in international business approved as IR major electives by the International Relations Program Advisory Council, including Fundamentals of International Business (IBS 301), MGT 472 (Comparative Management), MKT 475 (International Marketing) and FIN 460 (International Finance); 2) two courses in history and/or political science approved by the International Relations Program Advisory Council as IR major electives; and 3) one course approved by the International Relations Program Advisory Council as an IR major elective in a field other than international business or a course in history, political science, religious studies, or another area designated as a world culture course.

World Culture and Language: A student pursuing the track in World Culture and Language would take in addition to the eight IR core courses listed above 1) four courses in a modern foreign language beyond the advanced level; 2) one course in international business; 3) two courses in history, political science, or international business approved as IR major electives by the International Relations Program Advisory Council; and 4) two courses designated by the International Relations Advisory Council as world culture courses in any field except foreign language.

Double Majors

Double majors have been developed between the International Relations Program and the Departments of History, Modern Languages, and Political Science as well as with the programs in European Studies and International Business. It is also possible to pursue a double major with other academic programs such as Communication Studies, Criminal Justice, Sociology/Anthropology and Women’s Studies. For further information on double majors, contact the director of the International Relations Program.

Students pursuing a double major in International Relations and another major may double count as many courses as possible toward the satisfaction of International Relations major requirements.

Double Major in International Relations and International Business

The director of the International Relations Program has worked closely with the director of the International
Program works closely with the director of International university. The director of the International Relations spending at least one semester abroad studying at a foreign majors to fulfill the international experience requirement by The International Relations Program strongly encourages its Study Abroad Course in International Business modern languages, political science and religious studies in economics, finance, history, international relations, Minor electives: three courses chosen from approved list HIS 300 Historical Geography, HIS 331/PSC 355 (European Union) and PSC 442 (Seminar in International Relations)—are among those that have been approved for International Business major credit. For further information, consult the statement on the Double Major in International Business and International Relations in the catalog description of the International Business Program.

**International Relations Minor**

A minor in International Relations consists of nine courses, of which four may be used to satisfy requirements in AS II and AS IV in the Canisius College core curriculum. A student pursuing a minor in International Relations must also demonstrate competence in a modern foreign language through the intermediate level.

Choose one of the three course groupings

**Group 1**
- HIS 107 History of Modern Europe to 1815
- HIS 108 History of Modern Europe since 1815

**Group 2**
- HIS 109 History of Asia to 1800
- HIS 110 History of Asia since 1800

**Group 3**
- HIS 131 Latin American History to 1830
- HIS 132 Latin American History since 1830
- PSC 140 Introduction to International Relations
- PSC 150 Introduction to Comparative Politics and Government
- HIS 300 Historical Geography

Minor electives: three courses chosen from approved list in economics, finance, history, international relations, modern languages, political science and religious studies

Course in International Business

**Study Abroad**

The International Relations Program strongly encourages its majors to fulfill the international experience requirement by spending at least one semester abroad studying at a foreign university. The director of the International Relations Program works closely with the director of International business electives. Of those courses offered under the auspices of the International Relations Program, the following—HIS 300 (Historical Geography), HIS 331/PSC 355 (European Union) and PSC 442 (Seminar in International Relations)—are among those that have been approved for International Business major credit. For further information, consult the statement on the Double Major in International Business and International Relations in the catalog description of the International Business Program.

Students who spend a semester abroad at a foreign university may count up to three courses as International Relations major electives as long as these courses have been pre-approved by the director of the International Relations Program. Students who spend a year studying at a foreign university may be able to count more than three courses as International Relations major electives, but this will require special permission from the director of the International Relations Program. As a general rule, students must complete the International Relations Core of eight courses at Canisius College. Exceptions to this rule must be approved by the International Relations Program Advisory Council.

**Internships**

The International Relations Program offers a wide variety of internship programs in the Buffalo area, as well as the foreign policy Washington Semester Program at American University and a Summer Internship Program in Washington, D.C. Each program is designed to permit students to broaden their international relations education through contact with a diverse array of political participants.

**Co-Curricular Opportunities**

All International Relations majors have the opportunity to live with other students interested in an International Learning and Living Experience on the international floor in the new Eastwood Residence Hall. Students majoring in International Relations, International Business, European Studies, or a foreign language will attend guest lectures and special cultural events together, enjoy social activities with an international theme and, most importantly, live and learn with individuals who share a global perspective.

The International Relations Program at Canisius College organizes a Model United Nations Conference for area high school students in the fall semester of each year. Students from the Canisius College International Affairs Society play an important role in planning, organizing and conducting the conference. Members of the International Affairs

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*A student may substitute HIS 113-The Twentieth Century for HIS 108. A student in the All-College Honors Program may substitute HON 220-Problems in Modern European History for HIS 108.

*A student in the All-College Honors Program may substitute HON 223-Revolutions in Latin America for HIS 132.
Society also attend Model UN Conferences for college students at different sites during the year and sponsor an annual Human Rights Conference in the spring of each year.


ECO 101 - Macroeconomics
ECO 361 - International Economics and Organizations
FIN 460 - International Finance
HIS 107 - History of Modern Europe to 1815
HIS 108 - History of Modern Europe since 1815
HIS 109 - History of Asia to 1800
HIS 110 - History of Asia since 1800
HIS 113 - The Twentieth Century
HIS 131 - Latin American History to 1830
HIS 132 - Latin American History since 1830
HIS 260 - Canada and the World
HIS 300 - Historical Geography
HIS 335 - Britain in the Twentieth Century
HIS 336 - Modern Mexico
HIS 338 - The British Empire
HIS 345/PSC 357 - The Soviet Union and After
HIS 350/PSC 350 - 20th-Century Eastern Europe
HIS 356 - Twentieth-Century China
HIS 359 - History of Modern Japan, 1858 to the Present
HIS 365/PSC 365 - U.S.-Latin American Relations since 1898
HIS 393 - The Making of Modern Africa
HIS 394/PSC 397 - Contemporary Middle East
HIS 399 - American Diplomatic History
HON 220 - Problems in Modern European History
HON 223 - Revolutions in Latin America
HON 335 - War and Peace After 9/11
HON 394 - Imperialism and Decolonization
IBUS 301 - Fundamentals of International Business
MGT 472 - Comparative Management
MKT 475 - International Marketing
PSC 140 - Introduction to International Relations
PSC 150 - Introduction to Comparative Politics and Government
PSC 219 - Human Rights: International Perspectives
PSC 242 - International Organizations
PSC 245 - American Foreign Policy
PSC 343 - International Law
PSC 345/CRJ 345 - International Crime after 9/11
PSC 352 - Contemporary Issues in International Relations
PSC 355/HIS 331 - European Union
PSC 358/HIS 357 - Issues in International Security
PSC 359 - International Political Economy
PSC 442 - Senior Seminar in International Relations
RST 332 - Islam: Tradition and Modernity
The Department of Mathematics has two principle aims: (1) To transmit an understanding and appreciation of mathematics: its substance, its applicability, its literature, its current directions and problems, its historical development, its human worth and values; and (2) To promote the development of skill in the practice of mathematics.

To meet these objectives in a manner consistent with the interests and needs of its diverse clientele - mathematics, science and education majors, as well as students in other disciplines - the department offers a variety of courses and programs. Graduates who major in mathematics can enter careers in research, education, industry, business and government. Increasingly, they go on to earn advanced degrees in the areas of business, economics, computer science, operations research, statistics and actuarial science, as well as mathematics. The mathematics major is available under three options, each of which furnishes a sound foundation for the future.

Option A, the major option, is designed to prepare the student for positions in which mathematical competence is sought, as well as for advanced study in graduate school.

Option B, mathematics with a concentration in another area, allows the student to develop expertise in another area besides mathematics. The option may enable a student to earn a dual major or a minor from another department. Students interested in teaching at the secondary or elementary/early secondary level may take advantage of this option to give themselves a strong background in mathematics while fulfilling the requirements of the Teacher Education Department.

Option C, the statistics option, prepares the student for advanced work and the many careers which utilize statistical thinking. The course work also offers students good preparation for graduate study.

Option B or C, together with appropriate courses in business, can constitute a good preparation for a career in actuarial science.

The department also offers a mathematics minor, which is described under Other Programs.

For the non-specialist in mathematics, the department offers service courses which provide mathematical techniques necessary in the development of the student’s own field, studies imparting insights into the nature and applications of mathematics generally and courses treating the historical development or logical foundations of the subject.

Admission
Admission to the major program in mathematics requires departmental approval and satisfactory completion of MAT 111-112, 211, 230, 219, and either 222 or 351. A minimum grade of “C-” is ordinarily expected in all courses in the major.

Mathematics Curriculum:
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I or II, III, IV, V, VI, VIII (12 courses) (36)
3. Major course requirements:
   Option A (Mathematics major) (15 courses)
   MAT 111-112 Calculus I and II (8)
   MAT 211 Calculus III (4)
   MAT 230 Bridge to Abstract Mathematics (4)
   MAT 219 Linear Algebra (4)
   MAT 222 Differential Equations (4 or 3)
   MAT 351 Probability and Statistics I (4)
   MAT 311 Abstract Algebra I (4)
   MAT 321 Real Analysis I (4)
   One course to be chosen from the following: MAT 312, 313, 322, 411, 416, 421 (3)
   PHY 223-224 (10 or 6)
   General Physics for Physical Science Majors
   Restricted electives:
   Option A: four additional 300 or 400-level mathematics courses (12)
   Option B: two additional 300 or 400-level Mathematics courses, and four courses in another area approved by the Mathematics Department (18)
   Option C (Statistics) (15 courses)
   MAT 111-112 Calculus I and II (8)
   MAT 211 Calculus III (4)
   MAT 230 Bridge to Abstract Mathematics (4)
   MAT 219 Linear Algebra (4)
   MAT 222 Differential Equations (4 or 3)
   Mathematics elective: one 300- or 400-level mathematics course
MAT 351-352 Probability and Statistics  (6)
MAT 321 Real Analysis I  (4)
MAT 322 Real Analysis II  
   or  (3 or 4)
MAT 311 Abstract Algebra I
PHY 223-224 General Physics for Physical Science Majors 
   or  (10 or 6)
Two economics courses
Restricted electives: three additional upper-level statistics courses from (MAT 353, 354, 365, 370)  (9)

4. Electives: the department recommends at least one computer science course, such as CSC 111. Students planning on graduate work in mathematics should take as many as possible from the following:
MAT 312, 313, 322, 411, 416, 421.

Option A: (9 courses)  (27)
Option B: (7 courses)  (21)
Option C: (9 courses)  (27)
Total (40 courses)
TOTAL Options A and B:  (127-132)
TOTAL Option C:  (126-132)

Recommended Schedule (Options A and B)
FALL  SPRING
Freshman Year
ENG 101  3  ENG 102  3
MAT 111  4  RST 101  3
AS  3  MAT 112  4
AS  3  PHY 223 or Economics  5 or 3
Elective  3  Elective  3
Total  16  Total  18 or 16
Sophomore Year
PHY 224 or Economics  5 or 3  PHI 101  3
MAT 211  4  MAT 219  4
MAT 230  4  MAT 351  3
AS  3  AS  3
Elective  3  Elective  3
Total  19 or 17  Total  16
Junior Year
MAT 311  4  One of these: MAT 312, 
   313, 322, 421  3
MAT 321  4  Mathematics elective  3
AS  3  AS  3
Elective  3  Elective  3
Total  17  Total  15
Senior Year
Mathematics elective  3  Statistics elective  3
AS  3  AS  3
Elective  3  Elective  3
Elective  3  Elective  3
Total  15  Total  15 or 16
TOTAL  128-132

Other Programs
Mathematics Minor
MAT 111 Calculus I  (4)
or MAT 117 Calculus I Integrated with Physics I  
or MAT 115 Calculus for Business I  (4)
MAT 112 Calculus II  (4)
MAT 211 Calculus III  (4)
MAT 219 Linear Algebra  (4)
MAT 230 Bridge to Abstract Mathematics  (4)
Restricted electives: two courses from any one of the following tracks:
Probability and Statistics: MAT 351, 352, 353, 354, 365, 370
Applied Mathematics: MAT 222, 335, 336, 341
Theoretical Mathematics: MAT 311, 312, 313, 321, 
   322, 411, 416, 421
Mathematics and Culture: MAT 301, 331  (6-8)
TOTAL (7 courses)  (26-28)

Double Major or Minor in Another Department
By suitable choice of electives, a student following Option B can also complete the requirements for a minor or a major in another department, most commonly physics, chemistry, computer science or economics.
**Additional Information**

Students of computer science, physics, chemistry and engineering, in consultation with their advisors, should consider taking MAT 219 (Linear Algebra), even if this course is not listed as a required course in their major. Increasingly, linear algebra is playing an important role in applications of mathematics. This recommendation is in addition to the required calculus courses so central to the understanding of many physical, biological, chemical and economic phenomena. Those interested in probability and statistics are encouraged to take MAT 351-352.

**COURSES: 2005 - 2007**

MAT 001 Pre-College Mathematics I
Intermediate Algebra I: Real numbers, exponents, graphing and solving linear equations and inequalities, systems of linear equations, multiplication, division and factoring of polynomials. Word problems. A good course for overcoming math anxiety through problem solving. **NC**

MAT 002 Pre-College Mathematics II
Intermediate Algebra II: Simplifying and solving rational equations, conic sections, relations and functions, exponential and logarithmic functions. Word problems. **Prerequisite:** MAT 001 or consent of instructor. **NC**

MAT 105 Finite Mathematics
Introduction to problem solving with linear models, matrices, linear programming, notions underlying probability, interpretation of graphs and compound interest. (AS VII) **3**

MAT 106 Calculus for the Non-Sciences I
Fundamentals of calculus for students in business, or social or behavioral sciences. Credit not allowed if student already has credit for MAT 111, 115, or 117. (AS VII) **3**

MAT 107 Calculus for the Non-Sciences II
Continuation of MAT 106. Integral calculus and calculus of several variables with applications. (AS VII) **3**

MAT 109-110 Calculus with Review I and II
For science and mathematics majors. Calculus, with topics from precalculus. Logarithms, exponentials, trigonometric functions, limits, differentiation, related rates, max-min problems, antidifferentiation, definite integral. No credit allowed if student has credit for MAT 111, 115, or 117. (AS VII) **4-4**

MAT 111 Calculus I
For physical science, pre-engineering and mathematics majors. Functions of single variable. Functions, limits, differentiation, continuity, graphing, natural logarithm and exponential functions, related rates, max-min problems, mean value theorem, antidifferentiation, definite integral. (AS VII) **4**

MAT 112 Calculus II
Applications of integration. Inverse trigonometric functions, integration techniques, improper integrals, l'Hospital's rule, sequences, series, convergence tests, Taylor's theorem, applications. (AS VII) **Prerequisite:** MAT 111 with minimum grade C- for majors in chemistry, computer science, mathematics, physics and engineering. **4**

MAT 115 Calculus for Business I
First of two semesters of mathematics for business students. Differentiation/integration of functions of one variable. Applications: concepts, examples and problems in economics and business. (AS VII) **Prerequisite:** 3 1/2 years of high school mathematics. **4**

MAT 117 (PHY223A) Calculus I Integrated with General Physics I
For physical science, pre-engineering and mathematics majors. Coordinate systems, vector and matrix algebra, quadratic curves, scalar and vector functions of one variable, limits, continuity, differentiation, the definite integral, system of physical units, motions in space, Newton's laws, linear momentum. 5 hours lecture and 1 1/2 hrs lab per week. (AS I and VII) **Prerequisite:** MAT 117/PHY 223A with minimum grade C-. **6**

MAT 118 (PHY223B) Calculus II Integrated with General Physics I
Integrated continuation of MAT 117/PHY 223A. Fundamental theorem of calculus, relative and absolute extrema, curve sketching, parametric and polar equations, arc length, volume of solids, techniques of integration, power series, angular momentum, torque, work, energy. 8 hours lecture and 1 1/2 lab per week. (AS I and VII) **Prerequisite:** MAT 117/PHY 223A with minimum grade C-. **7**

MAT 121 The Nature of Mathematics
Liberal arts mathematics course. Problem solving techniques, deductive reasoning in mathematics, some modern topics and quantitative thinking. (AS VII) **Prerequisite:** 3 years of high school math or equivalent; sophomore standing or higher. **3**

MAT 131 Statistics and Computers
A first course for majors in social or health sciences. Descriptive statistics, calculators, computer programs and introduction to inferential statistics. (AS VII) **Prerequisite:** High school intermediate algebra. **3**

MAT 141 Inferential Statistics and Computers for Science
Elementary probability theory, descriptive statistics, hypothesis testing, estimation, correlation and regression. The computer will be used with one of the standard statistical packages. (AS VII) **Prerequisite:** 3-1/2 years of high school mathematics. **4**

MAT 150 Excursions in Modern Mathematics
Liberal arts course emphasizing applications of math in the social sciences. Covers topics such as voting theory, decisions made by groups, measurement of political power. (AS VII) **Prerequisite:** 3 years of high school mathematics or equivalent. **3**

MAT 151 Statistics for Lawyers
Liberal arts mathematics course, teaching the basics of probability and statistics with many applications taken from modern court cases. Emphasis is on statistical analysis and decision making. Contains computer component and significant writing component. **Prerequisite:** 3-1/2 years of high school mathematics. **3**

MAT 181 Symmetry
Liberal arts course exploring the mathematical world of geometry and symmetry. Measurement, billiards, polygons and polyhedra, tilings and wallpaper patterns, spirals and natural growth. (AS VII) **Prerequisite:** 3 years of high school mathematics or equivalent. **3**

MAT 191 Introduction to Discrete Mathematics
Fundamental topics with computer science applications. Sets and logic, propositional and predicate calculus, elements of combinatorics and counting, elementary discrete probability, functions and relations, graphs. **Prerequisite:** 3-1/2 years of high school mathematics. **4**

MAT 211 Calculus III
Continuation of MAT 111-112. Analytic geometry of 3-space and calculus of functions of several variables. **Prerequisite:** MAT 112 with minimum grade of C-. **4**

MAT 219 Linear Algebra
Vector spaces and inner product spaces. Linear transformations and matrices. Eigenvectors, eigenvalues, and applications. Orthogonal transformations. Quadratic forms and quadric surfaces. **Prerequisite:** MAT 112 or consent of the instructor. **4**

MAT 222 Differential Equations
Introduction to the theory and applications of ordinary differential equations. **Prerequisite:** MAT 211 with minimum grade of C-. **4**
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT 230</td>
<td>Bridge to Abstract Mathematics</td>
<td>4</td>
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<tr>
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<td>Transition from calculus to upper division courses: logic and methods of proof; set theory; relations, orders and functions; number systems; cardinality. <strong>Prerequisite:</strong> MAT 112 with minimum grade of C- or consent of the instructor.</td>
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<tr>
<td>MAT 301</td>
<td>History of Mathematics</td>
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<td>Development and interrelations of major areas of mathematics, from ancient to modern times. Emphasis on both historical context and mathematical content. Mathematics as cultural heritage. <strong>Prerequisite:</strong> MAT 111-112.</td>
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<tr>
<td>MAT 311</td>
<td>Abstract Algebra I</td>
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<td>Introduction to the basic structures of abstract algebra; groups, rings, fields. <strong>Prerequisites:</strong> MAT 230 and MAT 219 with minimum grades of C-.</td>
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<tr>
<td>MAT 312</td>
<td>Abstract Algebra II</td>
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<tr>
<td></td>
<td>Continuation of MAT 311. Selected topics from rings, integral domains, field extensions and Galois theory. <strong>Prerequisite:</strong> MAT 311.</td>
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<tr>
<td>MAT 313</td>
<td>Number Theory</td>
<td>3</td>
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<td>Divisibility, prime numbers, numerical functions, congruencies, quadratic reciprocity, Diophantine equations. <strong>Prerequisite:</strong> MAT 311 or permission of instructor.</td>
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<td>MAT 321</td>
<td>Real Analysis I</td>
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<td></td>
<td>Advanced study of differentiation and integration of functions. <strong>Prerequisites:</strong> MAT 211, 230, 219 with minimum grades of C-; or MAT 211, 230 and consent of instructor.</td>
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<tr>
<td>MAT 322</td>
<td>Real Analysis II</td>
<td>3</td>
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<tr>
<td></td>
<td>Continuation of MAT 321. Selected topics from functions of one or several variables. <strong>Prerequisite:</strong> MAT 321 with minimum grade of C-.</td>
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<tr>
<td>MAT 331</td>
<td>Introduction to Modern Geometry</td>
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<td>Axioms for geometry and their consequences: independence of the parallel postulate. Rudiments of hyperbolic geometry. Geometric transformations. <strong>Prerequisite:</strong> MAT 230.</td>
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<td>MAT 335-336</td>
<td>Mathematical Analysis for Physicists</td>
<td>4-4</td>
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<td>Theory and applications of infinite series. Fourier series, Green's functions. Fourier integrals, vector calculus, linear algebra, partial differential equations and complex variables. <strong>Prerequisite:</strong> MAT 222 or consent of instructor.</td>
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<tr>
<td>MAT 341</td>
<td>Numerical Analysis</td>
<td>3</td>
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<tr>
<td>(CSC 341)</td>
<td>The methods used to obtain numerical solutions of functional, integral and differential equations. <strong>Prerequisites:</strong> An elementary knowledge of computer programming and MAT 219.</td>
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<tr>
<td>MAT 351-352</td>
<td>Probability and Statistics</td>
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<td>Introduction to the mathematical aspects of modern probability theory and the theory of statistics. <strong>Prerequisite:</strong> MAT 211.</td>
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<tr>
<td>MAT 353</td>
<td>Regression Analysis</td>
<td>3</td>
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<td>Linear regression and correlation. Covariance, residual sum of squares, residual variance, correlation coefficient, tests of significance for correlation coefficient and for regression coefficients. Non-linear regression. <strong>Prerequisites:</strong> MAT 351-352 or consent of instructor.</td>
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<tr>
<td>MAT 354</td>
<td>Experimental Design and Statistical Computing</td>
<td>3</td>
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<td>Analyzing data; one-way/two-way blocking; chi-square, goodness of fit. Statistical computing package; Monte-Carlo simulation-subset selection, central limit theorems; residual plots. <strong>Prerequisites:</strong> MAT 351-352 or permission of instructor.</td>
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<tr>
<td>MAT 356</td>
<td>Logistic Regression</td>
<td>3</td>
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<td>Statistical analysis of dichotomous data. Univariate and multivariate cases are covered. Applied problems solved on the computer. <strong>Prerequisite:</strong> MAT 352 or ECO 256.</td>
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<tr>
<td>MAT 370</td>
<td>Topics in Statistics</td>
<td>3</td>
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<td>Study of a book on recent developments in math and science. Book subject varies. May be taken more than once. <strong>Prerequisite:</strong> By permission.</td>
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<tr>
<td>MAT 411</td>
<td>Topology</td>
<td>3</td>
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<td>An introduction to topology, stressing concrete examples including surfaces. Point-set, geometric and algebraic topology with interconnections and applications. <strong>Prerequisite:</strong> MAT 230 or permission of instructor.</td>
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<tr>
<td>MAT 416</td>
<td>Differential Geometry</td>
<td>3</td>
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<td>Curves in the plane and space: Frenet formulas, isoperimetric inequalities. Basic elements of surface theory. Curvature and mean curvature. Gauss's Theorema Egregium. Rigidity questions. <strong>Prerequisite:</strong> MAT 321.</td>
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</tr>
<tr>
<td>MAT 421</td>
<td>Complex Analysis</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complex numbers, analytic functions and mappings. Cauchy-Riemann equations, harmonic functions, Cauchy's theorem, integral formula and inequalities. Power series, residues, singularities and zeros, Rouch's Theorem. <strong>Prerequisite:</strong> MAT 321 or permission of the instructor.</td>
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<tr>
<td>MAT 498</td>
<td>Internship in Mathematics</td>
<td>1-3</td>
</tr>
<tr>
<td></td>
<td>Internship involving non-routine tasks linking academic concepts to practical experience. May be used for free elective credit only. <strong>Prerequisite:</strong> Consent of chair.</td>
<td></td>
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<tr>
<td>MAT 499</td>
<td>Independent Study</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> Consent of instructor and chair.</td>
<td></td>
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</tbody>
</table>
The Military Science Program is designed to augment the college learning experience; identifying and developing future leaders is the cornerstone of the program. Its primary goals are to identify, assess and develop the potential of young men and women for commissioning as officers in the United States Army, Army Reserve or Army National Guard. Intermediate goals include providing students with leadership and managerial skills that will prepare them to lead in public service, business, military and community organizations. The commissioning source of US Army officers for the Greater Buffalo area is the Golden Griffin Army Reserve Officer Training Corps (ROTC). This program is open to students of all majors.

The traditional Military Science program is four years: a two-year Basic Course (from two to six credit hours/year), for which no military obligation is incurred, and a two-year Advanced Course (six credit hours/year) for which there is a military service obligation.

The Basic Course refers to the first and second year courses and leadership labs: MLS 101 & 102, MLS 201 and 202, MLS 111/112L and 211/212L labs. These courses are designed for beginning students who want to qualify for entry into the Advanced Course and for those students who desire to explore opportunities within military science without an obligation. A number of popular and challenging extra-curricular activities are available to students who take these courses. Students may take up to twelve Basic Course credits without obligation. A student may also qualify for acceptance into the Advanced Course by completing the Leader Training Course (MLS 210) at Ft. Knox, KY or receive placement credit on the basis of prior military service.

Basic Course students may also compete for scholarships for two or three years of academic study. They do not have to be enrolled in ROTC at the time of application. All Army ROTC scholarship awards are based solely on merit to include a student’s academic, athletic, leadership and community service qualifications. These scholarship awards are valued at $20,000 per year for tuition. Additionally, scholarship awardees receive $8,480 per year towards room and board, $900 per year for books, and a $250-400 per-month stipend for incidental expenses.

The Advanced Course consists of MLS 301, 302 and 310; MLS 401 and 402; and concurrent enrollment in a MLS Lab (311/312L and 411/412L labs). It is available only to those students who have completed the Basic Course Curriculum, the Leader Training Course, or have earned placement credit for prior military service as stated above. The Advanced Course is designed to qualify students for a commission in the US Army, Army Reserve or National Guard. Completion of all courses listed above and the Leader Development and Assessment Course (LDAC) are required for commissioning. LDAC is a five-week, US Army-run course conducted at Ft. Lewis, Washington. Students are paid over $700 and provided free travel, subsistence and lodging at government expense. Cadets normally attend LDAC during the summer between their junior and senior years. All courses must be taken in sequence unless otherwise approved by the chair of the Military Science Department. Advanced Course students receive a tax-free stipend of $350-400 per month, up to $4,000 per year. Graduates of the Advanced Course may apply for active duty service in the United States Army or serve in the Army Reserve or Army National Guard.

A special component to the Advanced Course program is the Simultaneous Membership Program (SMP). This permits a student to combine service in the US Army Reserve or New York Army National Guard with the Canisius College ROTC Advanced Course. SMP members receive the training, pay and benefits associated with service in a reserve forces unit while completing their Advanced Course requirements to qualify for commissioning. Further details are available through the Canisius College Department of Military Science.

**Schedule**

<table>
<thead>
<tr>
<th>Freshman Year</th>
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<th>Sophomore Year</th>
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<th>Junior Year</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>FALL</td>
<td></td>
<td>SPRING</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>MLS 101</td>
<td>1</td>
<td>MLS 102</td>
<td>1</td>
<td>MLS 301</td>
<td>3</td>
</tr>
<tr>
<td>MLS 111L</td>
<td>2</td>
<td>MLS 112L</td>
<td>2</td>
<td>MLS 301 (Req)</td>
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</tr>
<tr>
<td>MLS 201</td>
<td>1</td>
<td>MLS 202</td>
<td>1</td>
<td>MLS 301</td>
<td>3</td>
</tr>
<tr>
<td>MLS 211L</td>
<td>2</td>
<td>MLS 212L</td>
<td>2</td>
<td>MLS 311L (Req)</td>
<td>0</td>
</tr>
</tbody>
</table>

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**Schedule (continued)**

**Summer**  
MLS 310 (LDAC) (five weeks)  3  
**Senior Year**  
MLS 401  3  
MLS 402  3  
MLS 411L (Req)  0  
MLS 412L (Req)  0  

**Note:** Successful completion of the ROTC Program also requires a one-semester course in military history that is offered through the History Department.

**COURSES: 2005 - 2007**

**MLS 101 Introduction to Leadership I**  
This course focuses on individual leadership skills and functioning as an effective member of a team. Optional: leadership lab, one-hour physical fitness sessions, weekend military exercises. 50 minutes once a week.

**MLS 102 Introduction to Leadership II**  
This course continues leadership development through an introduction to problem solving and effective decision-making techniques. Optional: leadership lab, one-hour physical fitness sessions, weekend military exercises. 50 minutes once a week.

**MLS 201 Leadership and Teamwork I**  
Course focuses principally on leadership, providing an extensive examination of the unique purpose, roles and obligations of leaders. The course involves exercises in communication, goal setting and public speaking. Optional: leadership lab, one-hour physical fitness sessions, weekend military exercises. 50 minutes once a week.

**MLS 202 Leadership and Teamwork II**  
Course focus is on motivational techniques, organizational ethics, values and counseling as part of a team. The course involves basic military tactics, small unit operations planning and map reading. Optional: leadership lab, one-hour physical fitness sessions, weekend military exercises. 50 minutes once a week.

**MLS 111L/112L/211L/212L Basic Course Leadership Laboratory**  
Students are given opportunities to lead their peers in hands-on training in basic military skills such as land navigation, rifle marksmanship, tactics, drill and ceremony, first aid and survival swimming. Prerequisite: Concurrent enrollment in MLS 101, 102, or MLS 201, 202.

**MLS 210 Leader Training Course**  
A summer leadership internship at Ft. Knox, KY. Students are paid over $700 and all expenses. Completion allows competition for a two-year ROTC scholarship ($20,000/year) and credit for MLS 100 and 200 courses. Five weeks.

**MLS 301 Unit Organization and Tactical Operations I**  
Small unit operations and advanced tactics. Extensive use of situational leadership exercises and group problem solving. Formulation of oral and written operational plans and orders. Military geography and orienteering. Three hours per week. Prerequisite: Approval of department chair; concurrent registration in MLS 311L.

**MLS 302 Unit Organization and Tactical Operations II**  
Course focus on application of military leadership theory. Instruction includes delivering briefings and issuing operation orders; advanced military skill training and small unit operations are emphasized. Three hours per week. Prerequisite: Approval of department chair; concurrent registration in MLS 312L.

**MLS 311L/312L Advanced Leadership Lab**  
Cadets apply basic military skills in small peer learning exercises and small unit training operations. Leadership positions are rotated to solve problems in tactics, land navigation, logistics and crisis reaction. Required for MLS 301/302 students.

**MLS 310 Leader Development and Assessment Course**  
A five week training experience at Ft. Lewis, WA designed to develop and evaluate leadership ability. The challenges are demanding, both mentally and physically. In addition to proving their leadership ability, cadets must meet established standards in physical fitness and demonstrate proficiency in military skills.

**MLS 401 Advanced Leadership Studies**  
The course studies leadership skills required of Army officers and prepares cadets to lead the cadet battalion during the school year. Emphasis on staff organization and function, the Army’s training management system, counseling methods and leadership. Prerequisites: MLS 301, MLS 302 and MLS 310; concurrent registration in MLS 411L.

**MLS 402 Military Law, Ethics, and the Military Profession**  
Final preparation for commissioning as a U.S. Army officer. Course emphasis is on establishing command climates, the military legal system, laws of war, administrative and logistical management and transition from cadet to lieutenant. Prerequisite: MLS 401; concurrent registration in MLS 412L.

**MLS 411/412L Senior Leadership Laboratory**  
Under cadre supervision, seniors plan, conduct and evaluate training for the underclass leadership labs. Seniors provide instruction, coaching and mentoring to underclass cadets, and conduct command and staff activities needed to run the cadet battalion. Two hours per week. Required for MLS 401/402.

**MLS 199/299/399/499 Independent Study**  
Students study selected military topics under the supervision of a cadre member. Prerequisite: Permission of the professor of military science.
The Department of Modern Languages offers full and varied programs leading to majors in French, German and Spanish. Instruction is also provided in Italian, Polish and ASL. Dual majors with virtually every other academic discipline are encouraged and easy to implement. Courses in Latin and Greek are provided by the Department of Classics.

The primary goal of the department is to develop the student’s ability to understand, speak, read, and write the language(s) of his or her choice. At the same time, it strives to inculcate an understanding and appreciation of the culture, history, literature and diversity of other peoples. A further aim is to give the student a comprehensive grasp of the structure of language as an end in itself. In short, the department seeks to provide its students with the skills and intellectual breadth needed to communicate effectively and to play an active role in today’s world.

Proficiency in foreign languages enables students to broaden their intellectual and aesthetic horizons. Specifically, such mastery can lead to rewarding careers in social work, international business (sales, management, banking, import-export), government service (customs and immigration, foreign service, AID, USIA, CIA, NSA), teaching, interpreting and scientific research, to mention but a few. Language skill can often be the deciding factor in finding a job in competition with equally qualified but monolingual peers. Finally, proficiency in one or more foreign languages is useful and often required for students who go on to pursue master’s or doctoral degrees.

Admission
Students planning to major in French, German or Spanish are accepted only after completion of FRC 215-216, GER 215-216 or SPA 215-216 with a C average or better. In addition, each student must secure permission from the chair before the major is officially approved. Students must maintain a 2.00 G.P.A. in their French, German or Spanish courses to be eligible to graduate with a degree in French, German or Spanish. Admission to language-education and dual-major programs is governed by the same procedures.

Prerequisites and requirements for specific language courses may be summarized as follows:

1. All 103-104 courses are designed for students with no prior skill or training in the language. Students of French, Italian, or Spanish with one year of high school training in said language are not allowed to take 103-104 level courses in that language except by written permission of the department chair or an advisor. Students with two or more years of prior language training are directed to the intermediate level courses. Students with prior training in German should consult with an advisor in Modern Languages before selecting an entry-level course.

2. Intermediate level courses (115-116, 117-118, 123-124) normally presuppose one or two years of high school language study. These courses stress the oral/aural approach and are generally aimed at a practical command of a foreign language for specific purposes, e.g., FRC/SPA for travel or business.

3. Review/Advanced courses (215-216 level) are open to students who have completed the intermediate level or the equivalent, normally three or four years of high school language study.

4. Courses above the 215-216 level are normally taken after successful completion of the 215-216 level. Exceptions are courses given in translation, which have no prerequisites.


Modern Language Curriculum (for Dual Majors)
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, II, IV, V, VI, VII (12 courses) (36)
3. Major course requirements: (10 courses) (30)
   FRC/GER/SPA 215-216 Review/Advanced
   FRC/GER/SPA 323 Immersion and
   FRC/GER/SPA 299
   FRC/GER 324 Topics in Conv./Immersion in Cont. and
   FRC/GER Culture

1 Areas III and VIII are automatically fulfilled because this program is in both the art/literature and language areas.
Modern Language Curriculum (for Dual Majors) continued

FRC/GER 299
or
SPA 324 Intro. to Hispanic Literatures
FRC/SPA 331 Substance and Style
or
GER 331 Stylistics and Adv. Grammar
FRC 332 Substance and Style, II
or
GER 332 Stylistics II and Translation
or
SPA 332 Contemporary Translation
FRC/GER Major electives ((4 courses)
or
SPA 451 and 3 Major electives
4. SECOND major and
FREE electives: (14 courses) 4 or 3
TOTAL: (40 courses) (42)

Recommended Schedule for Dual Major

FALL
Freshman Year
ENG 101 3
FRC/GER/SPA 215 3
AS 3
AS 3
Total 15
Sophomore Year
PHI 101 3
FRC/SPA/G 323 4
FRC/GER/SPA 299
Total 15
Junior Year
FRC/GER/SPA 331 3
FRC/GER/SPA elective 3
AS 3
Total 15
Senior Year
FRC/GER/SPA elective 3
Other Major or free elective 3
Total 15

Other Programs

Language study lends itself uniquely to the concept of the dual major. Students may combine language programs with virtually any major, but of particular interest and practicality are dual majors with international business, international relations, communication, economics, marketing, management, philosophy, history, English, political science and art history.

The department strongly advises travel and study abroad, and maintains its own unique programs at the University of Lille (France), the University of Dortmund (Germany), the University of Oviedo (Spain) and the Universidad Michoacana de San Nicolás de Hidalgo (Mexico). Eligible students, whether majors or not, are strongly encouraged to spend a semester of study abroad, and/or to participate in one or more of the non-academic summer internships that are maintained by the college in France, Germany, Mexico and Spain. Examples of the latter include teaching English at a school or teaching the mentally or physically challenged in France, working at a bank or insurance company in Germany, serving as a camp counselor or English teacher in Spain, or working at a hotel or law office in Mexico. Qualified students in French, German and Spanish may also opt for a community service internship in the Buffalo area in a school, hospital, or governmental agency. Through these internships students earn academic credit and gain practical experience while using and perfecting their language skills. Recent intern hosts have included hospitals, schools and social service agencies.


FRC 103-104 Elementary French
Listening, speaking, reading, writing. Introduction to French culture. Class work: intensive analysis of culture and/or selected literary problems. Research paper required. In French. Supplemented by required aural-oral practice in Language Laboratory (FRC 299).
Prerequisites: FRC 103 or permission of chair.
FRC 115-116 Transitional/Intermediate French
Continued development in speaking, listening, writing and especially reading French literary and cultural material. Comprehensive grammar review. Lab required. (AS VIII).
Prerequisites for 115: FRC 103-104 or two years of high school French. Prerequisite for 116: FRC 115 or permission of chair.
FRC 117 French for Travel
Oral/aural skills needed for coping with travel in francophonic regions. Practical situations and travel planning highlighted.
Language Lab required (FRC 299). (AS VIII) Prerequisites: FRC 103-104 or two years of high school French.
FRC 118 Francophone Society and Culture
Contemporary politics, education, family life, popular language (inc. non-verbal communication) and popular culture (movies, TV, advertising, etc.). Language Lab required (FRC 299). (AS VIII)
Prerequisites: FRC 103-104 or two years of high school French.
FRC 215-216 Review/La Francophonie
Overview of Francophone cultures. Review of grammar.
Prerequisites: FRC 115-116 or FRC 117-118, or three years of high school French. Includes service-learning. (AS VIII)

Dual majors in French, German or Spanish and another department must complete FRC/GER/SPA 215-216, 323-324, 331-332 plus four French or German electives; and three Spanish electives plus SPA 451. Dual majors in two languages must complete FRC/GER/SPA 215-216, 323-324 and 331-332 in both languages plus four electives in their primary language (except in Spanish, where they must complete 3 electives and SPA 451) and two electives in their secondary language. Native speakers of Spanish may be allowed to replace one or more of the required 300-level courses with a 300- or 400-level major elective, upon consultation with their departmental advisor. Second language proficiency is required ONLY for graduate-track majors, although it is strongly advised for language-education majors.

*a Students who have had fewer than 3 years of French, German or Spanish will begin the major at 115-116, for a total of 12 courses
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GER 323</td>
<td>Immersion in German</td>
<td>3</td>
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<tr>
<td></td>
<td>Conversation on wide variety of topics, involving a sophisticated vocabulary.</td>
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<td></td>
<td>Writing of compositions, letters, etc. Language Lab (GER 299) required. (AS VIII)</td>
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<tr>
<td>GER 324</td>
<td>Immersion in Contemporary German Culture</td>
<td>4</td>
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<td></td>
<td>Contemporary communication skills emphasized in a general exploration of contemporary culture of Germany Language lab required.</td>
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<tr>
<td>GER 331</td>
<td>Substance and Style: Effective Writing in French, I</td>
<td>3</td>
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<tr>
<td></td>
<td>Distinguishing and producing effective writing of different sorts: essay,</td>
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<td></td>
<td>correspondence, description, report.</td>
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<tr>
<td>GER 332</td>
<td>Substance and Style: Effective Writing in French, II</td>
<td>3</td>
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<td></td>
<td>Phonetics may be included. Language lab required.</td>
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<tr>
<td>GER 334</td>
<td>Survey of French and Francophone Literature, VII</td>
<td>6</td>
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<tr>
<td></td>
<td>Selected readings of literary works from France and other French-speaking</td>
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<tr>
<td></td>
<td>countries. In French.</td>
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<tr>
<td>GER 337</td>
<td>French History</td>
<td>3</td>
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<tr>
<td></td>
<td>Chronological survey of French history from pre-historic times to Fifth</td>
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<td></td>
<td>Republic. Emphasis on development of Etat centralise. In French.</td>
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<tr>
<td>GER 339</td>
<td>French Culture</td>
<td>3</td>
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<tr>
<td></td>
<td>Selected topics in contemporary issues of French and Francophone societies.</td>
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<tr>
<td>GER 400</td>
<td>Advanced Internship, in France</td>
<td>3</td>
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<tr>
<td></td>
<td>Comparative study of a designated aspect of culture in France. For students</td>
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<tr>
<td></td>
<td>who have already completed FRC 331. Prerequisite: Permission of chair.</td>
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<tr>
<td>GER 451</td>
<td>French Seminar &amp; Special Topics</td>
<td>3</td>
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<tr>
<td>GER 499</td>
<td>Independent Study</td>
<td>3</td>
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<tr>
<td>GER 103-104</td>
<td>Elementary German</td>
<td>8</td>
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<tr>
<td></td>
<td>Reading, conversation, grammar. Required use of Language Laboratory (GER 299)</td>
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<td></td>
<td>to reinforce aural-oral classwork.</td>
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<tr>
<td>GER 215-216</td>
<td>Review/Advanced German</td>
<td>6</td>
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<tr>
<td></td>
<td>Further development of fluency in reading and writing. Discussion of</td>
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<td></td>
<td>difficult problems in grammar. Introduction to literary works of well</td>
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<td></td>
<td>known authors. (AS VIII)</td>
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<tr>
<td>GER 299</td>
<td>German Language Lab</td>
<td>0</td>
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<tr>
<td></td>
<td>Students enrolled in GER 103-104, 115-116, 123-124, 133-134, 323-324,</td>
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<td>353-354 must register for one hour per week practice in Language Lab.</td>
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<tr>
<td>GER 319-320</td>
<td>Germany Today</td>
<td>6</td>
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<tr>
<td></td>
<td>The many political, economic, and social issues that currently beset German</td>
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<tr>
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<td>society. Assessment of values and attitudes. In German</td>
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<tr>
<td>GER 321-324</td>
<td>German Civilization and Culture I</td>
<td>3</td>
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<tr>
<td></td>
<td>Review and analysis of German history and culture. Introduction to</td>
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<tr>
<td></td>
<td>German art, music, literature and philosophy. Use of films and videos. (AS III)</td>
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<tr>
<td>GER 322</td>
<td>German Civilization and Culture II</td>
<td>3</td>
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<tr>
<td></td>
<td>Survey of German intellectual and cultural history in the twentieth century,</td>
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<tr>
<td></td>
<td>including the destruction of culture during the Nazi period. Formerly GER 323.</td>
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</tbody>
</table>

**Notes:**
- GER 332 Topics in Conversation I
- GER 334 Survey of French and Francophone Literature, VII
- GER 337 French History
- GER 339 French Culture
- GER 400 Advanced Internship, in France
GER 365 Germany, Austria and Switzerland since 1945 3
A close look at the social and cultural as well as the political changes since the end of World War II. Significant examples of cultural movements in film, literature, and music. Also featuring a close look at the modifications in every-day life, media, in fashion and design.

GER 400 German Internship 3
Qualified students are placed in jobs or service programs where they will use and perfect language skills. Prerequisite: Permission of chair.

GER 441-442 The German Novel 6
Theoretical, historical and critical analysis of the German novel from Parzival to the postwar novels of Boll, Grass, etc. In German.

GER 451 The Age of Enlightenment 3
The works of Klopstock, Lessing and Wieland as well as those of Moses Mendelssohn. Reflection on the complex tensions of this era. Major developments in the drama, the novel, lyrical and epic poetry as well as in the fields of socio-economics, politics and philosophy will be visited.

GER 452 Contemporary German Film 3
Concentration on the period of Autorenfilm and highlighting some of its most prominent directors: Rainer Werner Fassbinder, Werner Herzog, Alexander Kluge, Edgar Reitz, Volker Schlöndorff, Jean-Marie Straub, Hans-Jürgen Syberberg, Rolf Thiele, Margarethe von Trotta, and Wim Wenders.

GER 453 Literature and Film 3
Study of six literary epochs through literature and film, stretching from the 18th to the 20th centuries. Comparison and critical analysis of prose and its adaptation in (German and foreign) film.

GER 499 Independent Study 3
Prerequisite: Permission of chair.

SPA 103-104 Elementary Spanish 8
Listening, speaking, reading, writing. Hispanic culture. Language Lab (SPA 299) required. (AS VIII)
Prerequisite for 103: Permission of chair.
Prerequisite for 104: SPA 103 or permission of chair.

SPA 115-116 Transitional/Intermediate Spanish 8
Communication skills refined through focus on everyday topics. Reading and writing skills strengthened. Spanish grammar expanded beyond simple tenses and subject-object-verb syntax. Lab required. (AS VIII). Prerequisites for 115: SPA 103-104 or two years of high school Spanish. Prerequisite for 116: SPA 115 or permission of chair.

SPA 215-216 Review/Advanced Spanish 6
Analysis of advanced grammar problems and refinement of oral/aural competence. Readings, discussions and compositions based on Peninsular and Latin-American cultures. (AS VIII)

SPA 299 Spanish Language Lab 0
Students enrolled in SPA 103-104, 115-116, 123, 124, 323-324 must register for one hour per week practice in Language Lab. One credit awarded per semester per course. Prerequisite: Registration for one or more of the courses listed above.

SPA 323 Immersion in Contemporary Hispanic Cultures 4
Contemporary communications skills emphasized in a general exploration of contemporary Spanish-speaking cultures. Language lab required.

SPA 324 Introduction to Hispanic Literatures 3
Approaches to the genres, themes and styles of literary discourse in Spanish.

SPA 331 Substance and Style: Effective Writing in Spanish 3
Distinguishing and producing effective writing of four different sorts: personal, business, newspaper and literary.

SPA 332 Contemporary Translation 3
A study of the structures and vocabularies of Spanish and English and problems of equivalencies between the two.

SPA 333-334 Survey of Spanish Peninsular Literature 6
Selected readings in Spanish Peninsular literature from the Middle Ages to the 20th century. Emphasis on the Golden Age.

SPA 337 Hispanic Civilization and Culture I 3
Survey of outstanding achievements of Peninsular and Latin American cultures in architecture, art, music, philosophy, science and technology. Assessment of values. In Spanish. 2005-2006 only

SPA 338 Hispanic Civilization and Culture II 3
Survey of contemporary Hispanic politics, education, family life, popular culture (movies, TV, non-verbal communication, etc.) and values. In Spanish. (ICD)

SPA 343-344 Survey of Latin American Literature 6
Selected readings from works of major Latin American poets, essayists, novelists and playwrights. In Spanish. 2005-2006 only

SPA 345 Hispanic Poetry 3
Hispanic lyric, narrative, and epic poetry from the Middle Ages to the present. Introduction to Spanish versification. In Spanish. 2005-2006 only

SPA 350 Hispanic Short Stories 3
Critical survey of outstanding short stories ranging from Bécquer to Matute in Spain and Quiroga to Allende in Latin America. Special attention to film adaptations of works by authors such as Márquez and Borges.

SPA 351 Junior Spanish Seminar & Special Topics 3
Intensive analysis of selected literary works. Research paper required. In Spanish.

SPA 400 Spanish Internship 3
Qualified students are placed in jobs or service programs where they will use and perfect language skills. Prerequisite: Permission of chair.

SPA 451 Senior Spanish Seminar 3
Intensive analysis of culture and/or selected literary problems. Research paper required. In Spanish.

SPA 452 Senior Latin American Special Topics 3

SPA 473 (MGT 473) Mexican Crafts and Culture 3
Meets once a week with MGT 473, in English, for discussion of crafts of Michoacan/importation and sale. Meets once a week independently, in Spanish, for study of general Mexican culture.

SPA 499 Independent Study 3
Prerequisite: Permission of chair.

ASL 103 American Sign Language I 3
Introduction to ASL, its structure, major grammatical features and language functions. Vocabulary acquisition. Captioning and telecommunication devices. Deaf cultural information. Deaf co-teacher and deaf consultants. (AS VIII) Language lab required.

ASL 104 American Sign Language II 3
Builds on basic ASL grammar and conversational skills. Increases expressive/receptive fluency. Linguistic and cultural ASL concepts are expanded and deaf traditions studied. Deaf co-teacher and deaf consultants. (AS VIII) Language lab required. Prerequisite: ASL 103.

GREEK - See Classics Department.

ITA 103-104 Elementary Italian 8
Listening, speaking, reading, and writing. Italian culture. Language laboratory supplements classroom instruction and exercises. Language Lab required (ITA 299). (AS VIII)
Prerequisite for 103: Permission of chair. Prerequisite for 104: ITA 103 or permission of chair.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ITA 113-114</td>
<td>Intermediate Italian</td>
<td>8</td>
<td>Continued development of speaking, listening, writing and especially reading skills. Translation and analysis of Italian literary and cultural material. Comprehensive grammar review. Language Lab required (ITA 299). (AS VIII) Prerequisites for 115: ITA 103-104 or permission of chair. Prerequisite for 116: ITA 115 or permission of chair.</td>
</tr>
<tr>
<td>ITA 123</td>
<td>Italian for Travel</td>
<td>4</td>
<td>Oral/aural skills needed for coping with travel in Italian-speaking regions. Practical situations and travel planning highlighted. Language Lab required (ITA 299). (AS VIII) Prerequisites: ITA 103-104 or two years of high school Italian.</td>
</tr>
<tr>
<td>ITA 124</td>
<td>Italian Society and Culture</td>
<td>4</td>
<td>Contemporary politics, education, family life, popular language and culture (movies, TV, advertising, etc.). Language Lab required (ITA 299). (AS VIII) Prerequisites: ITA 103-104 or two years of high school Italian.</td>
</tr>
<tr>
<td>ITA 299</td>
<td>Italian Language Lab</td>
<td>0</td>
<td>Students enrolled in ITA 103-104, 113-114, 123, or 124 must register for one hour per week practice in Language Lab. One credit awarded per semester per course. Prerequisite: Registration for one or more of courses listed above.</td>
</tr>
<tr>
<td>ITA 499</td>
<td>Independent Study</td>
<td>3</td>
<td>Prerequisite: Permission of chair.</td>
</tr>
<tr>
<td>LATIN</td>
<td>See Classics Department.</td>
<td></td>
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<tr>
<td>POL 103-104</td>
<td>Elementary Polish</td>
<td>8</td>
<td>Listening, reading, conversation, writing. Required use of Language Laboratory (POL 299) to reinforce aural-oral classwork. Intro. to Polish culture. (AS VIII) Prerequisite for 103: Permission of chair and/or instructor. Prerequisite for 104: POL 103, or permission of chair or instructor.</td>
</tr>
<tr>
<td>POL 299</td>
<td>Polish Language Lab</td>
<td>0</td>
<td>Students enrolled in POL 103-104 must register for one hour per week practice in Language Lab.</td>
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</table>
The objective of the philosophy program is to develop reflective and analytical skills to help students understand, articulate, and evaluate the values, principles and assumptions on which major individual and social decisions rest.

By studying the perennial issues of 2500 years of philosophy and analyzing the underlying philosophical issues facing today’s persons and societies, students can attain perspective, knowledge and skills important to anyone who expects to make significant personal, professional, or public decisions. In view of this, the Canisius College Core Curriculum includes three courses in philosophy: Introduction to Philosophy (PHI 101) and two other courses selected from Area V.

Further study of philosophy — as a major program, as a minor program, as half of a dual major, or as an elective concentration — is a good preparation for students with personal or professional goals in business, law, medicine, religion, government, or education. For example, a well-designed philosophy program can serve as an excellent undergraduate component in Canisius College’s Dual Degree program, which leads to the M.B.A. or M.B.A.P.A. degree. Coupled with the appropriate pre-professional concentration, philosophy provides a strong undergraduate preparation for subsequent professional training in law, medicine, or theology or for certain civil service positions in state or federal government.

With the approval and assistance of the chair of the Department of Philosophy, the major program in philosophy can be tailored to the needs and plans of the individual student. Normally, programs will include courses in the central issues of philosophy, the history of philosophy, some major philosophers and ethics. Seminar experience is an ordinary part of a philosophy program.

**Admission**
Admission to the major program in philosophy is contingent upon the satisfactory completion of PHI 101 and two additional courses in philosophy with a grade of C. The approval of the Department of Philosophy is required.

**Philosophy Curriculum**
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, II, III, IV, VI, VII, VIII (14 courses) (42)
3. Major course requirements: (12 courses)
   - PHI 300 Logic (3)
   - PHI 340 Ethics (3)
   - PHI 350 Ancient Philosophy (3)
   - PHI 352 Medieval Philosophy (3)
   - PHI 354 Modern Philosophy I (3)
   - PHI 356 Modern Philosophy II (3)
   - PHI 401-402 Topics in Philosophy (6)
   - PHI 403-404 Philosophy Capstone Senior Seminar (6)
   - Philosophy electives: two courses (6)
4. Electives (10 courses) (30)
TOTAL (40 courses) (120)

**Recommended Schedule**

<table>
<thead>
<tr>
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<tr>
<td><strong>Freshman Year</strong></td>
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<td>ENG 101</td>
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<td>RST 101</td>
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<td>PHI 300</td>
<td>3 PHI 352</td>
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<tr>
<td>PHI 340</td>
<td>3 PHI 356</td>
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<tr>
<td>PHI 354</td>
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<td>PHI 403</td>
<td>3 PHI 404</td>
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<tr>
<td>Topics course</td>
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<td>Total</td>
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<td>TOTAL</td>
<td>120</td>
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Philosophy Minor

PHI 350 Ancient Philosophy (3)

or

PHI 352 Medieval Philosophy (3)

PHI 354 Modern Philosophy I (3)

Topics course: one course

Topics courses are PHI 401, 402, 403, 404) (3)

Philosophy electives: (3 courses) selected in consultation with Philosophy advisor (9)

TOTAL (6 courses) (18)

Note: Students may choose to concentrate their course work in a specific area, such as history of philosophy, ethics, metaphysics and epistemology, Thomistic philosophy, philosophy of religion, phenomenology and hermeneutics, Christian philosophy, logic and the philosophy of science.

Other Programs

The Philosophy Department routinely offers a dual major with any of the other departments in the humanities. Special arrangements can be made to accommodate students in any curriculum. Philosophy majors may also take a minor in another department or program (e.g., Catholic Studies).


PHI 101 Introduction to Philosophy 3

A thoughtful examination of several representative philosophical issues. Emphasis on logical and critical analysis of claims and arguments proposed by some prominent classical and modern philosophers.

PHI 300 (CSI 300) Logic 3

Introduction to the principles of sound reasoning and the art of evaluating arguments. (AS V)

PHI 301 Philosophy of the Person 3

Examination of several theories of human nature, and of the relation of human beings to the social and natural environment. (AS V)

PHI 302 Reality and Knowledge 3

Consideration of basic pre-suppositions about the world of reality and human understanding of it. (AS V)

PHI 303 (CSI 303) Philosophy of Mind 3

Examination of contemporary philosophical approaches to the explanation of consciousness and cognition as they relate to the interdisciplinary fields of cognitive science. (AS V)

PHI 304 God and the World 3

Critical examination of key contemporary and classical discussions of the existence and nature of God. (AS V)

PHI 305 (GRN 305, SOC 305) Time and the Human Condition 3

Examination of major theories of time and temporal processes. Discussion of implications of these theories for study of human nature. (AS V) (ICD)

PHI 325 Philosophy of Art and Beauty 3

Examination of various responses to the questions, “What is Art?” and “What is Beauty?” Topics may include the artistic process, art for life, beauty as objective, and the impact of society on aesthetic theories.

PHI 335 Philosophy of Law 3

Examination of nature, source and sanctions of law; analysis of legal positivism, natural law, rights, and justice; discussion of relationship between law and morality. Formerly PHI 463. (AS V)

PHI 340 Ethics 3

Reflection on the nature of moral values and principles, and examination of the basis for making moral decisions. (AS V)

PHI 342 Medical Ethics 3

Consideration of current problems in medicine and the life sciences. (AS V)

PHI 344 Ethical Issues in Business 3

Examination of some ethical problems in business and related issues in ethical theory. (AS V)

PHI 348 Environmental Ethics 3

Examination of various theories of environmental ethics that treat the issue of what ethical responsibilities human beings ought to have in their relationship with the natural world. (AS V)

PHI 350 Ancient Philosophy 3

Early philosophical thought in the West with special emphasis on the Presocratics, Socrates, Plato, and Aristotle. (AS V)

PHI 352 Medieval Philosophy 3

From St. Augustine in fifth century A.D. to Renaissance of 15th century. Principal figures, ideas, and influences. Basic texts analyzed. (AS V)

PHI 354 Modern Philosophy I 3

Development of early modern philosophical thought from Descartes in the early 17th century to Kant at the end of the 18th century. (AS V)

PHI 356 Modern Philosophy II 3

Survey of 19th and early 20th century philosophical thought, especially Kant, Hegel, Marx, Kierkegaard, Mill, Nietzsche. (AS V)

PHI 358 Contemporary Philosophy 3

Study of several major twentieth-century philosophers (e.g., Dewey, Wittgenstein, Heidegger) and a sampling of recent philosophical work. (AS V)

PHI 360 American Philosophy 3

Survey if American philosophical thought usually with special emphasis on Peirce, Royce, James and Dewey.

PHI 365 Existentialism 3

Introduction to major concepts of existentialism. Consideration of 19th and early 20th century background. Detailed examination of such figures as Camus, Sartre, and Marcel. (AS V)

PHI 372 Catholic Social Thought 3

Analysis of Catholic social principles and their time-conditioned application through examination of papal social encyclicals from Leo XIII to John Paul II. (AS V)

PHI 376 Philosophy of the Family 3

Readings and discussions of texts representative of a traditional Western philosophy of the family; covers from Xenophon and Aristotle to Engels and Marcel. (AS V)

PHI 380 Political Philosophy 3

Analysis of the political theories and concepts of power, authority, and law operative in Western civilization. Formerly PHI 465. (AS V)

ZPR 351 Contemporary Catholic Social Ethics: Philosophical and Theological Perspectives 4

Examination of the religious and philosophical principles underlying modern Catholic social thought. Special attention given to issues of contemporary concern in the U.S., e.g., racism, sexism, economic justice, and human rights

PHI 401-404 Topics in Philosophy 3 each

Critical examination of selected important thinkers in the history of philosophical thought or of selected philosophical topics in areas such as metaphysics, epistemology, ethics, and aesthetics. Subject matter determined by the instructor. Prerequisite: Three courses in philosophy.

PHI 499 Directed Readings in Philosophy 3

Tutorial. Personally designed with a member of the Philosophy Department. Topics and terms mutually determined by student and mentor. Prerequisite: Three previous courses in philosophy.
The Physics major provides a strong background in the scientific skills of analysis and experimentation and gives students a broad choice of career opportunities. The Physics major is a preparation for further study in graduate physics and related areas such as oceanography, geophysics, patent law, medicine, engineering and astronomy and entry into research and development employment. The specific goal for majors is a thorough knowledge of basic physical science and the mathematical and experimental application of this basis to the study of natural phenomena. Other offerings are intended to give non-majors an appreciation of the relation between science and the world within which they live.

Admission
For admission to the advanced program, a student should have completed, with a grade of at least C, General Physics (PHY 223, 224, 225) and Mathematics through Differential Equations (MAT 222).

Physics Curriculum
1. **ENG 101, ENG 102, PHI 101, RST 101** (4 courses) (12)
2. **Area Studies:** Two courses from each of these areas: II, III, IV, V, VI, VIII (12 courses) (36)
3. **Major course requirements:** (18 courses)
   - PHY 223 or PHY 223a/MAT 117
   - PHY 223b/MAT 118 - 224
   - General Physics for Physical Science Majors (10)
   - PHY 225 General Physics III (5)
   - PHY 226 Basic Electronics (4)
   - PHY 330 Electricity and Magnetism I (3)
   - PHY 331 Electricity and Magnetism II (3)
   - PHY 332 Statistical and Thermal Physics (3)
   - PHY 350-351 Advanced Laboratory (2)
   - PHY 443 Classical Mechanics (3)
   - PHY 447 Quantum Mechanics (3)
   - PHY 449 Nuclear Physics Lab (1)
   - PHY 498 Senior Project (1)
   - CHM 111-112 General Chemistry (10)
   - CSC 107 Computer Programming for Science (4)
   - MAT 111-112 or MAT 117/PHY 223a-MAT 118/PHY 223b Calculus I and II (8)
   - MAT 211 Calculus III (4)
   - MAT 222 Differential Equations (4)
   - MAT 335-336 Mathematical Analysis for Physicists (8)
4. **Electives:** Computer Science courses are highly recommended, as are PHY 301, PHY 360, PHY 400 (4 courses) (12)

**TOTAL (38 courses)** (136)

**Recommended Schedule**

<table>
<thead>
<tr>
<th>FALL</th>
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<tbody>
<tr>
<td><strong>Freshman Year</strong></td>
<td><strong>Freshman Year</strong></td>
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<tr>
<td>CSC 107 or AS</td>
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<th><strong>Sophomore Year</strong></th>
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<td>PHI 101</td>
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<td>MAT 211</td>
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<td>PHY 224</td>
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<tr>
<td>AS or CSC 107</td>
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<td>PHY 330</td>
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<td>MAT 335</td>
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<th><strong>Senior or Junior Year</strong></th>
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<td>PHY 443</td>
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<td>PHY 449</td>
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<td>MAT 336</td>
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<td><strong>Total</strong></td>
<td>17</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>136</td>
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</tbody>
</table>

**Other Programs**

The physics minor requires seven courses, which are to be distributed as follows.

---

1 Area I is automatically fulfilled because this program is in the natural sciences. Area VII is fulfilled by the required mathematics courses in this program.

2 CSC 107 is offered in alternate years only.
Four Required Courses
- PHY 223 (or PHY 223a,b) and PHY 224, General Physics I, II (10)
- PHY 225 General Physics III (5)
- MAT 211 Calculus III (4)
- Three courses selected from the following two groups. At least one of these three must be selected from Group I.

Group I —
- PHY 330 Electromagnetism I (3)
- PHY 331 Electromagnetism II (3)
- PHY 332 Statistical and Thermal Physics (3)
- PHY 443 Classical Mechanics (3)
- PHY 447 Quantum Mechanics (3)

Note: (i) PHY 331 requires PHY 330 as a prerequisite. (ii) MAT 336 is strongly recommended for PHY 447.

Group II —
- PHY 226 Basic Electronics (4)
- PHY 360 Scientific Modeling (4)
- Two of PHY 350, 351, 449 Advanced Lab (2)
- MAT 222 Differential Equations (4)
- MAT 335 Mathematical Analysis for Physicists I (4)
- MAT 336 Mathematical Analysis for Physicists II (4)
- CHM 301 Classical Physical Chemistry (5)

Note: If CHM 301 is used for Group II, PHY 332 cannot be used for Group I.

Dual majors can be formed with almost any other course of studies.

Additional Information
Physics majors use high resolution spectroscopy equipment, lasers, fiber optics, high vacuum apparatus, low temperature apparatus, a multi-channel nuclear spectrometer and an X-ray spectrometer. They have access to departmental computers and the college's main computer system. In addition, a large supply of other equipment is available for students to use as early as their first semester.

The Society of Physics Students offers opportunities for social activities, technical tours, lectures and other activities.


PHY 120 Physics for Allied Health Professions 3
For athletic training majors. Mechanics, electricity, waves and radiation as applied to sports medicine.

PHY 129 Introduction to Astronomy 3
Understanding modern astronomy by using ideas from basic physics. Mathematics minimized. Naming and viewing stars and constellations is included. (AS I)

PHY 225 General Physics III 2006-2007 only
Calculus-based physics course and related laboratory. PHY 223: Newtonian mechanics with applications. PHY 224: electricity and magnetism. Prerequisites: MAT 111. A grade of C- or higher in PHY 223 is necessary to continue in PHY 224.

PHY 225-226 General Physics for Physical Science Majors 10
Calculus-based physics course and related laboratory. PHY 223: Newtonian mechanics with applications. PHY 224: electricity and magnetism. Prerequisites: MAT 111. A grade of C- or higher in PHY 223 is necessary to continue in PHY 224.

PHY 225/226 Calculus-Based Physics 10
Lectures and related laboratory integrate the topics covered in MAT 111, 112 and PHY 223. Topics include: Coordinate systems, vector and matrix algebra, quadratic curves, scalar and vector functions of one variable, limits, continuity, differentiation, the definite integral, systems of physical units, motion in space, Newton's laws and linear momentum. Five hours of lecture and one hour of lab per week. (AS I and AS VII)

PHY 223b/MAT 118 Calculus I and II 7
Integrated with General Physics I
Integrated continuation of PHY 223a/MAT 117. Fundamental theorem of calculus, relative and absolute extrema, curve sketching, parametric and polar equations, arc length, volumes of solids, techniques of integration, power series; angular momentum, torque, work, energy. Eight hours of lecture, one hour of lab per week. (AS I and AS VII) Prerequisite: A grade of C- or higher in PHY 223a/MAT 117 is required to continue in PHY 223b/MAT118.

PHY 225 General Physics III 5
Calculus-based physics course and related laboratory. Fluids, mechanical waves and sound, heat and thermodynamics, geometric and physical optics, relativity and introductory quantum physics. Prerequisite: A grade of C- or higher in PHY 224 is required to continue in PHY 225.

PHY 226 Basic Electronics 4
Circuit analysis, power supplies, semiconductor physics, operational amplifiers, digital electronics. Integrated circuit techniques. Includes laboratory work each week. Prerequisite: A grade of C- or higher in PHY 224 is required.

PHY 301 Optics 3
Geometric optics, interference, diffraction, fiber optics, laser system design, holographic metrology and non-linear optical phenomena. Prerequisites: MAT 222 and PHY 224.

PHY 330 Electromagnetism I 3
Static and time-varying classical electric and magnetic fields in free-space and matter. Prerequisite: PHY 224. Prior completion of or concurrent registration for MAT 335 is strongly encouraged. 2005-2006 only

PHY 331 Electromagnetism II 3
Primary topic: electromagnetic waves in free-space and matter, beginning with the Maxwell equations. Additional topics: radiation and special relativity. Prerequisite: PHY 330. 2005-2006 only

PHY 332 Statistical and Thermal Physics 3
Develops statistical concepts and methods used to relate macroscopic to microscopic descriptions of many particle systems. Prerequisite: PHY 225. 2006-2007 only
PHY 350-351 Advanced Laboratory  2
Advanced experiments such as experimental instrumentation, holography, spatial filtering, atomic spectroscopy, x-ray diffraction, low-temperature measurements, magnetic resonance. **Prerequisite:** PHY 225.

PHY 360 (SCI 360) Scientific Modeling  3
An introduction to the use of computer models to develop understanding in a scientific context. This course is intended for students in any scientific or mathematical discipline, and focuses on the principles involved in using and interpreting computer models. The course is divided into three main sections: dynamical modeling, structural modeling and computer-based statistical methods. Problems will be drawn from biology, biochemistry, chemistry, geology and physics. **Prerequisites:** MAT 111 and a one-year introductory science sequence (in computer science, chemistry, biology or physics).

PHY 400 (MAT 400) Mathematics-Physics Reading Group  1
Study of a book on recent developments in mathematics and physics. Book subject varies. May be taken more than once. **Prerequisite:** By permission.

PHY 443 Classical Mechanics  3
One, two, and three dimensional motion of a particle, non-inertial systems, classical scattering, rigid-body motion. Lagrange and Hamilton equations, calculus of variations, oscillations. **Prerequisites:** PHY 224, MAT 222. 2006-2007 only

PHY 447 Quantum Mechanics  3
Experimental basis of quantum mechanics, state functions, operators. Schrödinger's equation and applications, parity, perturbation theory, Dirac notation. **Prerequisite:** MAT 336 is strongly recommended. 2006-2007 only

PHY 449 Nuclear Physics Lab  1
One-semester lab meeting once per week. Experiments study nuclear instrumentation, characteristics of radiation and nuclear spectra. **Prerequisite:** PHY 225

PHY 498 Senior Project  1-3
A one-semester research project done under the supervision of a faculty member. **Prerequisite:** Senior standing in physics and permission of department chair.

PHY 499 Independent Study  3
**Prerequisite:** Permission of department chair.
A Political Science major is designed to provide a systematic understanding of government and politics, both national and international. The modern study of government is concerned not only with formal structure, but also with political behavior and the political culture in which government institutions operate. Such study is intended to increase one's understanding of society, to assist the educated person in fulfilling the obligations of a citizen and to lay the groundwork for a diversified choice of careers.

Political science provides an excellent background for the study of law and political journalism. It is suited to the aims of the student who plans to enter active political life or government service. This major also provides ideal background for teaching in the social studies and a dual major with education is possible. Political science may be the basis for graduate study leading to administrative work in government, in international agencies or in business organizations.

Admission
The major in Political Science is open to students who have completed PSC 103, PSC 104, 111, PSC 140, PSC 150 and PSC 217 with a minimum grade of C in each. It is strongly recommended that these six courses be completed by the beginning of the junior year.

Political Science Curriculum
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses)(12)
2. Area Studies: Two courses from each of these areas: I, III, IV, V, VI, VII, VIII (14 courses) (42)
3. Major course requirements: (11 courses)
   PSC 103 Constitutional Foundations of American Government (3)
   PSC 104 American Political Process (3)
   PSC 111 Western Political Tradition (3)
   PSC 140 International Relations (3)
   PSC 150 Comparative Government and Politics (3)
   PSC 217 Research Methods (3)
   Political Science electives: five courses, including at least two at the 300/400 level (15)
4. Electives (11 courses)
   TOTAL (40 courses) (120)

Recommended Schedule

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<td><strong>Freshman Year</strong></td>
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| **Sophomore Year** | |
| RST 101 | 3 | PHI 101 | 3 |
| AS | 3 | AS | 3 |
| PSC 217 | 3 | PSC 111 | 3 |
| AS | 3 | AS | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

| **Junior Year** | |
| Political Science elective | 3 | Political Science elective | 3 |
| Political Science elective | 3 | AS | 3 |
| AS | 3 | AS | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

| **Senior Year** | |
| Political Science elective | 3 | Political Science elective | 3 |
| AS | 3 | AS | 3 |
| AS | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

TOTAL 120

Other Programs
In addition to the major, two minors are offered. The Political Science minor, for non-majors only, provides an overview of the discipline. The Law and Public Policy minor, for both majors and non-majors, focuses on the relationship between the legal system and public policy.

Political Science Minor
International relations: one course (PSC 140, 242, 352, 245) (3)
Comparative government and politics: one course (PSC 150, 341, 355) (3)
Political philosophy: one course (PSC 110, 111) (3)
Public law: one course (PSC 227, 228, 320, 321, 328, 343) (3)
Political Science Minor (continued)
Public administration/public policy:
one course (PSC 215, 237, 334, 336) (3)
American institutions and behavior:
one course (PSC 224, 225, 236, 325, 335) (3)
TOTAL (6 courses) (18)

Law and Public Policy Minor:
PSC 215 National Issues and Public Policy (3)
PSC 320 Constitutional Law (3)
PSC 343 International Law (3)
PSC 321 Civil Liberties and Civil Rights (3)
PSC 326 Media Law (3)
PSC 227 Criminal Justice I (3)
PSC 228 Criminal Justice II (3)
TOTAL (7 courses) (21)

A pre-law curriculum is available for prospective law students. Six courses in law and the judicial process are offered (PSC 110, 111, 227, 228, 320 and 321). For further information on this course of study, the chair of the department should be consulted.

Dual Degree Possibilities
By suitable choice of electives, a student can earn a dual major in political science and several other areas. The Political Science Department has dual major programs with Communication Studies, Criminal Justice, Economics, English, European Studies, History, International Relations, Sociology and Urban Studies. Students planning such a program should consult with the chair or director of each department or program involved.

For political science majors who may be thinking about a career in business and/or a master of business administration degree, adequate preparation for these can be obtained by taking a concentration in Business consisting of seven courses: ECO 101-102, ACC 201-202, MGT 101, MKT 201 and MAT 131 or MGT 340. There is also a minor in Business Management for non-business majors.

Resume Building
Internships are available in Washington, Albany and locally with members of the Federal House and Senate, the State Assembly and Senate executive and legislative offices in local government.

Opportunity for independent study is available for junior and senior students who wish to explore the various aspects of politics and government on their own.

Study abroad program offer exciting opportunities to study politics in other courses or pursue internships. Students may also participate in EuroSim, an international intercollegiate simulation of the European Union, attended by American and European delegations. In even-numbered years students travel to Europe for the simulation, and in odd-numbered years the simulation is held in New York State.


PSC 103 (CRJ 103) Constitutional Foundations of American Government 3
Compares the constitutional provisions for federalism and the legislative, executive and judicial branches of government with the development of these aspects of American government (AS II)
PSC 104 American Political Process 3
An introduction to American politics including political socialization, public opinion and ideologies, political participation in electoral systems and mass movements, political parties and interest groups. (AS II)
PSC 110 (HIS 170) Western Political Tradition I 3
Main outlines of history of Western political tradition from dawn of political consciousness to Machiavelli. (AS IV)(ICD)
PSC 111 (HIS 171) Western Political Tradition II 3
Development of western political tradition from Machiavelli to present, emphasizing development of liberal, conservative and socialist traditions. (AS IV)(ICD)
PSC 140 International Relations 3
Introduces paradigms of world politics. International security, political economy and globalization. Power politics and international organizations (AS II)
PSC 150 Comparative Government and Politics 3
Introduces comparative analysis of foreign countries. Governments, ideologies, parties, elections, political culture, civil society and democracy in industrialized and developing countries. Cooperative team learning. (AS II) (ICD)
PSC 200 American Catholics in the Public Square 3
The role of Catholics in American politics including political behavior, contributions of prominent Catholic leaders and issues of importance to American Catholics (AS II)
PSC 210 American Political Humor 3
History, significance and impact of humor on the political process. A wide ranging variety of humorous forms will be used including editorial cartoons, comic strips, late night television, radio broadcasts, television programs, movies and more.
PSC 215 (URS 215) National Issues and Public Policy 3
Selected policy issues and their relationship to the political process including health care, homeland security, welfare and housing.
PSC 217 (SOC 342, URS 350) Research Methods 3
Basic, non-statistical treatment of current techniques and methodologies which characterize political-science research.
PSC 219 Human Rights: International Perspectives 3
Analysis of issues related to human rights problems and actions implementing global human rights standards.
PSC 224 Congress and the Legislative Process 3
Survey of Congressional procedures and practices. Emphasis on recent changes within Congress, and the position of Congress in the U.S. political and governmental system.
PSC 225 U.S. Presidency 3
Survey of the U.S. executive branch of government, including President, Vice President, White House staff, Executive office and the bureaucracy.
PSC 227 (CRJ 227) Criminal Justice I 3
See CRJ 227 for course description.
PSC 228 (CRJ 228) Criminal Justice II 3
See CRJ 228 for course description.
PSC 233 Interest Groups and Public Opinion in America
Development of the notions of opinion and interest, their transmission and their influence on decision-making.

PSC 236 Political Campaigning
Campaigning resources, techniques, strategies and goals... practical as well as theoretical treatment... field research likely.

PSC 237 (URS 237) State and Local Politics
The institutions and policies of state and local governments, with focus on New York State. State and local elections, gubernatorial politics, state legislatures, community politics.

PSC 242 International Organizations
International and transnational. Intergovernmental and non-governmental. Regional and global. Content areas: political, economic and humanitarian.

PSC 245 American Foreign Policy
US diplomatic history since 1945. Structure, process and issues in contemporary American foreign relations.

PSC 253 Politics in North America
Government and Politics in Canada and Mexico. Coverage of foreign relations with the United States on border issues and trade (NAFTA).

PSC 290 Politics in Film
Concepts and issues in political science through classic and contemporary films. Emphasis on political analysis and writing. (AS II)

PSC 320 (CRJ 320) American Constitutional Law I
Development of constitutional law in the U.S. from the founding of the Republic to present. Case-study method in selected areas of constitutional jurisprudence.

PSC 321 (CRJ 321) American Constitutional Law II: Civil Liberties
Role of modern and contemporary Supreme Court in controversial areas of civil liberties and related questions. Current interpretations of Bill of Rights and Fourteenth Amendment.

PSC 324 (ECO 401) Public Finance
See ECO 401.

PSC 325 Elections and Voting Behavior
The various types of elections and electoral procedures and their relationship to voter turnout and voter choice.

PSC 326 (COM 326) Media Law & Ethics in the Cyber Age
Interdisciplinary examination of legal issues that have emerged with the growth of the internet including copyright, privacy, national security, internet crime and libel.

PSC 327 (SOC 327, CRJ 327) Criminal Justice I
Analysis of criminal justice system; examination of justification for punishment, the police, constitutional rights; the prosecuting and defense attorney.

PSC 328 (SOC 328, CRJ 328) Criminal Justice II
Analysis of the trial; guilty pleas, sentencing, corrections; the extent and causes of crime and proposal for change and reform.

PSC 334 (URS 334) Public Administration
The Federal Bureaucracy: its relationship to the executive, and the public. Elements and issues of public-sector management. Prerequisite: PSC 103 or 104 or permission of instructor.

PSC 335 Political Parties
Development and present conditions of political parties. What they do and why they do it... their past and present role and their future prospects.

PSC 336 (URS 336) Urban Government and Politics
Structure, function, operation and politics of local government. Machine and reform models; power and participation. Significant policy issues to be addressed include schools, finances, land use, planning and crime.

PSC 343 International Law
Theoretical foundations of international law. International legal aspects of the rights and duties of nations. Content areas include the Law of the Sea, human rights, welfare and trade. Simulation exercises.

PSC 345 (CRJ 345) International Crime After 9/11
Concepts and issues in cross-border organized crime. National, international and local responses. Emphasis on drug trafficking, terrorism and illegal immigration. Guest speakers and video. Prerequisites: PSC 140-150 or CRJ 227-228 or permission of instructor.

PSC 347 (HIS 347) The History of Marxism
See HIS 347.

PSC 350 (HIS 350) 20th Century Eastern Europe
See HIS 350.

PSC 352 Contemporary Issues in International Relations
Various current topics in the global arena, such as terrorism, human rights, debt and intervention. Content varies by semester.

PSC 355 (HIS 331) European Union
History of European integration. Structure, process and politics of EU policies. Optional EuroSim: international, intercollegiate simulation of the EU and travel

PSC 357 (HIS 357) The Making of Modern Africa
See HIS 357.

PSC 359 International Political Economy
Introduction to various theories of international political economy, the struggle for power and wealth in the international system and problems confronting the international system

PSC 393 (HIS 393) The Making of Modern Africa
See HIS 393.

PSC 397 (HIS 394) Contemporary Middle East
See HIS 394.

PSC 436 Seminar in Presidential Campaigning and Advance Work
Political advance work in the context of contemporary American presidential campaigns. Prerequisite: Permission of instructor.

PSC 442 Seminar in International Relations
Functional perspectives of international relations through examination of selected topics and issues involving global politics. Prerequisite: PSC 240, 241, or 242, or permission of instructor.

PSC 455 Seminar in European Politics
Contemporary issues in Eastern and Western Europe. Concepts and theories of comparative politics and European integration and governance. Prerequisites: PSC 140 and 150 or permission of instructor.

PSC 498 (CRJ 498) Internship
A variety of opportunities are available locally, as well as in Washington, D.C. and Albany. Internships arranged by faculty members in government, law offices and non-profit organizations. Prerequisite: Permission of chair of Political Science department.

PSC 499 Independent Study
Research and/or directed reading under direction of faculty members associated with the Political Science department. Prerequisite: Permission of chair of the Political Science department.
The engineering curriculum covers the first two years of a four-year engineering major and is staffed by faculty from the Physics Department. Two options are available in Pre-Engineering. The 2+2 program covers the science, mathematics and computer programming that form the basis of study for the first two years of most engineering school curricula. The 3+2 option requires three years at Canisius, and includes an associate's degree in the business track, incorporating more courses in economics and accounting. Students who successfully complete one of these programs usually transfer to an engineering school to complete the requirements for an engineering degree.

The completion of the engineering degree normally takes an additional two years of study after finishing the two or three year program at Canisius. Transfer students generally receive full junior or third year standing at an engineering school. Recently, most of the successful transfer students have enrolled at SUNYAB, but transfer students have completed engineering degrees at a wide variety of schools including Cornell, Clarkson, RPI and RIT. Canisius maintains an articulation agreement in engineering with the University of Detroit Mercy.

Students clearly focused on a specific engineering discipline are encouraged to pursue the 2+2 program. Those students who are not focused on a specific engineering discipline, or who want more time to explore other options may be better suited to the 3+2 program. It is possible to switch between the two programs easily in the first year of study. Students are strongly urged to meet with the program director to discuss their choice of program.

Some students choose to remain at Canisius after completing the program to pursue other majors such as physics, mathematics, chemistry or computer science.

First-year courses are chosen after individual consultation with the director of the Engineering program. The faculty associated with this program function as the advisors for all engineering students during their study at Canisius, and students are strongly urged to maintain close contact with the program director to insure a smooth transfer to an engineering program.

<table>
<thead>
<tr>
<th>Recommended Schedule: 2+2 Program</th>
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</thead>
<tbody>
<tr>
<td><strong>FALL</strong></td>
</tr>
<tr>
<td>ENG 101  3</td>
</tr>
<tr>
<td>CHM 111  5</td>
</tr>
<tr>
<td>EGR 111  1</td>
</tr>
<tr>
<td>CSC 107 OR Elective$^{1,2}$  3</td>
</tr>
<tr>
<td>MAT 111  4</td>
</tr>
<tr>
<td><strong>Total</strong>  16</td>
</tr>
</tbody>
</table>

| **SPRING**                       |
| ENG 102  3  |
| CHM 112  5  |
| PHY 223  5  |
| PHY 226 or Elective$^2$  4  |
| EGR 208 or Elective$^2$  3  |
| EGR 214 or Elective$^2$  3  |
| **Total**  18  | **Total**  17  |

<table>
<thead>
<tr>
<th>Recommended Schedule 3+2 Program, Associate of Arts in the Business Track</th>
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</thead>
<tbody>
<tr>
<td><strong>FALL</strong></td>
</tr>
<tr>
<td>ENG 101  3</td>
</tr>
<tr>
<td>CHM 111  5</td>
</tr>
<tr>
<td>EGR 111  1</td>
</tr>
<tr>
<td>ECO 101  3</td>
</tr>
<tr>
<td>MAT 111  4</td>
</tr>
<tr>
<td><strong>Total</strong>  16</td>
</tr>
</tbody>
</table>

| **SPRING**                                                               |
| MAT 222  4  |
| PHY 225  3  |
| PHY 226 or Elective$^2$  4  |
| EGR 208 or Elective$^2$  3  |
| EGR 214 or Elective$^2$  3  |
| **Total**  18  | **Total**  17  |

1. CSC 107 will be offered in alternate years. Students should take it when it is available.
2. Electives will be chosen with the advice of a faculty advisor. ECO 101 and ECO 102 are recommended. Students considering chemical engineering should take CHM 227 and CHM 228. Consultation with a faculty advisor is strongly encouraged to avoid difficulties in the transfer process. Other courses may be necessary depending on intended engineering major.

EGR 111 Introduction to Engineering Design
Introduction to some of the quantitative tools engineers use in solving problems. Topics covered include: model classification, optimization methods, and deterministic, probabilistic and economic models.

EGR 211 Thermodynamics
Fundamental concepts and laws of thermodynamics, equilibrium. Applications to physical and chemical systems. Prerequisite: PHY 223.

EGR 207 Engineering Statics
Forces and torques on rigid bodies, couples, moments, centroids and moments of inertia. Equilibrium conditions, friction, free body diagrams. Applications to beams, trusses, frames and other structures. Prerequisites: PHY 223, MAT 112.

EGR 208 Engineering Dynamics
Kinematics of particles and rigid objects. D’Alembert’s Principle, moving reference frames, work-energy methods, impulse and momentum, vibration. Applications to engineering problems. Prerequisite: EGR 207.

EGR 214 Strength of Materials
Behavior of materials under mechanical loading. Stress and strain relationships, shear, bending moments, torsion and deflection. Beams, columns, energy methods and failure criteria. Prerequisite: EGR 207.
Psychologists are people trained in the scientific study of behavior. They are involved in research, teaching, counseling and consulting and may be found in work settings as diverse as factories and laboratories, clinics and hospital wards, nursery schools and universities, governmental and military agencies, community organizations and classrooms.

The discipline of psychology makes an important contribution to a liberal arts education. It overlaps with both the biological and social sciences as well as with the humanities in that all of these disciplines are concerned with the understanding of human experience. By studying the human experience through scientific inquiry, psychology helps to clarify the problems of human interaction in our complex society. The study of psychology also offers an opportunity to gain knowledge of one's self and one's relationship with others.

A major in Psychology offers an excellent preparation for a wide variety of careers after graduation. The undergraduate degree in psychology serves as a foundation for continuing graduate work towards a master's or doctoral degree in psychology. However, it is important to know that many of our majors do NOT become professional psychologists. Instead, they combine psychology with electives or concentrations in other departments, such as Biology, Communication Studies, Criminal Justice, English, Management/Marketing, Physical Education, and Political Science. These combinations provide excellent preparation for a wide variety of careers where knowing about people and how to deal with them is important. Training in psychology can provide a better understanding of human motivation, develop problem solving and communication skills and enhance social and leadership abilities. These skills are increasingly valued in business and other private and public organizations.

In a recent survey of our graduating majors, students singled out the accessibility and quality of the faculty and our internship program as two of the most outstanding features of the Psychology Department. Our program of off-campus internships and research opportunities with faculty provides students with hands-on experience to supplement their classroom learning. Specially-designed programs in Animal Behavior; Child, Family and Community Studies; Clinical/Counseling Psychology; Forensic Psychology; Industrial/Organizational Psychology; School Psychology; and Sports Psychology, as well as other professionally directed experiences, help students obtain specialized training and plan post-graduate careers. The most current descriptions of these programs are available on our Web site.

The Psychology Department's research facilities include extensive animal behavior labs, an observation complex with two-way mirrors, and closed circuit television for recording and viewing training sessions in counseling. Facilities for conducting social and cognitive psychology experiments are also available. Students can also participate in a wide variety of scholastic and social activities related to psychology. These activities include Psi Chi (National Honor Society in Psychology), Psychology Club, Zoological Society, Gerontology Club and the Psychology Department Newsletter.

**Admission**
Minimum requirements for graduating as a Psychology major are a C average (2.00 G.P.A.) in PSY 101-102, a C average (2.00 G.P.A.) in psychology courses, and a C average (2.00 G.P.A.) in all college courses. Students wishing to become psychology majors should fill out a Psychology Major Declaration Form in the Psychology Department (HSC 209) and inform the registrar of their intention to major in psychology.

**Psychology Curriculum**
1. **ENG 101, ENG 102, PHI 101, RST 101** (4 courses)(12)
2. **Area Studies**: One course from Area VII and two courses from each of these areas: I, III, IV, V, VI, VIII (13 courses) (39)
3. **Major course requirements**: (10 courses)
   - PSY 101 Introduction to Psychology I (3)
   - PSY 102 Introduction to Psychology II (3)
   - PSY 201 Basic Statistics for Behavioral Sciences (3)
   - PSY 202 Experimental Psychology (3)

**Core I (Development-Social-Industrial)**:
   one course to be chosen from the following: PSY 203, 229, 307, 318, 329, 333 (3)

**Core II (Personality-Abnormal-Counseling)**:
   one course to be chosen from the following: PSY 235, 302, 303, 334, 373, 384, 452 (3)

**Core III (Learning/Cognition-Physiological-Animal Behavior)**: one course to be chosen from the following: PSY 315, 317, 324, 325, 352, 355, 391, 395, 397 (3)

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1 Joint appointment with Biology department.
2 An additional 3-credit college elective is needed by students using PSY 201 as an Area VII course.
Psychology electives: three courses (9)
Students taking a psychology minor should consider a practicum (PSY 498 A-G) in their Senior year.

Note: A total of only six credit hours from PSY 495, 497, 498, and 499 collectively may be counted toward the 30 credit hours for the Psychology major. Additional hours of these courses may be taken as free electives.

4. Electives (13 courses) (39)
TOTAL (40 courses) (120)

Most graduate schools, as well as professional employers, seek a strong liberal-arts background rather than an unusually intense concentration in psychology at the undergraduate level. Specific recommendations beyond those given above depend on a student’s area of specialization within the field.

Recommended Schedule
FALL SPRING
Freshman Year
ENG 101 3 ENG 102 3
PSY 101 3 PSY 102 3
AS 3 AS 3
AS 3 AS 3
AS 3 AS 3
Total 15 Total 15
Sophomore Year
RST 101 3 PHI 101 3
PSY 201 3 PSY 202 3
AS 3 AS 3
Psychology core 3 AS 3
Elective 3 Psychology core 3
Total 15 Total 15
Junior Year
Psychology core 3 Psychology elective 3
AS 3 AS 3
AS 3 AS 3
Elective 3 Elective 3
Elective 3 Elective 3
Total 15 Total 15
Senior Year
Psychology elective 3 Psychology elective 3
Psychology elective or Elective 3
Elective 3 Elective 3
AS 3 Elective 3
Elective 3 Elective 3
Total 15 Total 15
TOTAL 120

Minors
The General Psychology minor is for students not majoring in psychology.

General Psychology Minor
PSY 101 Introduction to Psychology (3)
PSY 102 Introduction to Psychology II (3)
Psychology electives: four Psychology courses approved by the student’s Psychology Department advisor (12)
TOTAL (6 courses) (18)

Animal Behavior Minor
The Animal Behavior minor, which is open to majors and non-majors, focuses on how behaviors relate to the biology and ecology of a species, how behaviors evolve and how the behavior of each species adapts it for survival. This program is geared toward those who wish to pursue graduate studies in animal behavior or who hope to pursue careers working with animals. The college’s animal behavior laboratory has semi-natural environments and animal groupings and is the center for on-going behavioral research. Eligible students can serve as interns through this program in the Canisius labs and/or at the Buffalo Zoo.

PSY/BIO 315 Comparative Animal Behavior (3)
PSY/BIO 315L Comparative Animal Behavior Lab (1)
PSY/BIO 316 Social Organization of Mammals (4)
PSY/BIO 316L Social Organization of Mammals Lab (0)
PSY/BIO 317 Sex, Evolution and Behavior (3)
PSY 352 Learning (3)
PSY/BIO 325 Reproductive Biopsychology or (3)
PSY/BIO 355 Behavioral Neuroscience or (3)
PSY 498A Practicum: Animal Focus
PSY 499 Independent Study: Animal Behavior Research TOTAL 6 courses) (20)

Clinical/Counseling Minor
The Clinical/Counseling Psychology minor is appropriate for individuals planning careers in Psychology (Clinical/Counseling), Social Work, or Counseling Education and is open to majors and non-majors with the needed prerequisites. Students learn about the therapeutic services provided in counseling centers, independent or group practices, hospitals or clinics.

(Note: Non-majors must complete the following prerequisites before beginning the minor: PSY 101, PSY 102, and PSY 201)

Adult Clinical/Counseling Track
PSY 303 Abnormal Psychology (3)
PSY 395 Assessment in the Behavioral Sciences (3)
PSY 452 Theories and Techniques of Counseling (3)
PSY 498 Practicum: Clinical/Counseling Psychology (3)
Any THREE of the following Courses:
PSY 235 Health Psychology (3)
PSY/GRN/SOC 321 Ethics and Human Services (3)
PSY 334 Child, Family and Community Psychology (3)
PSY/CST 324 Cognitive Psychology (3)
PSY 391 Biopsychology of Stress (3)
PSY 397 Neurobiology of Mental Disease (3)
PSY/BIO 325 Reproductive Biopsychology (3)
TOTAL (7 courses) (21)
**Child/Adolescent Clinical/Counseling Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 303</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 395</td>
<td>Assessment in the Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSY 452</td>
<td>Theories and Techniques of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PSY 498</td>
<td>Practicum: Clinical/Counseling Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Any THREE of the following Courses:

- PSY 384 Child Psychopathology                     | 3       |
- PSY 203 Developmental Psychology                  | 3       |
- PSY 307 Adolescent Psychology                     | 3       |
- PSY 373 Behavioral Modification                   | 3       |
- PSY 370 School Psychology                         | 3       |
- COM 304 Family Communication                     | 3       |
- CRJ/SOC 354 Juvenile Delinquency                  | 3       |

TOTAL (7 courses) (21)

**Forensic Psychology Minor**

The Forensic Psychology minor, open to both majors and non-majors, focuses on the application of psychology to law and criminal justice, including the clinical, applied, and research activities where these disciplines intersect. A background in forensic psychology is relevant to treating law violators with mental health disturbances. The minor will help ready students for careers involving criminal behavior, law enforcement, corrections, family law and law and public policy.

(Note: Non-majors must complete the following prerequisites before beginning the minor: PSY 101, PSY 102, PSY 201 or equivalent Area VII statistics course, and PSY 202 or equivalent research methods course.)

- PSY/CRJ 303 Abnormal Psychology                    | 3       |
- PSY/CRJ 307 Adolescent Psychology                  | 3       |
- PSY/CRJ 369 Forensic Psychology                    | 3       |
- PSY/CRJ 227 Criminal Justice I                     | 3       |
- PSY/CRJ 228 Criminal Justice II                    | 3       |
- Psychology elective: one of the following courses: |         |
  - PSY/CRJ 334, PSY 373, PSY/CRJ 382, PSY 395,     | 3       |
  - PSY 498F                                         |
- Criminal Justice elective: one of the following courses: |         |
  - CRJ 337, CRJ 343, CRJ 344, CRJ 351, CRJ 353,     |         |
  - CRJ 355, CRJ 356, CRJ 357, CRJ 381, CRJ 449,     |         |
  - CRJ 450, CRJ 482                                 |         |

TOTAL (7 courses) (21)

**Industrial/Organizational Psychology Minor**

The Industrial/Organizational Psychology minor is open to majors in Psychology or Management/Marketing. This interdisciplinary collaboration is concerned with the workings of industrial and non-industrial organizations. Students interested in a career as a psychologist working in a business or similar organizational environment learn about selection and placement, organization development, training, personnel research, consumer psychology and engineering psychology.

- PSY 229 Industrial/Organizational Psychology³   | 3       |
- PSY 318 Social Psychology                       | 3       |
- PSY 329 Leadership and Motivation               | 3       |
- PSY 395 Assessment in the Behavioral Sciences   | 3       |
- MGT 360 Organizational Behavior³               | 3       |
- or MGT 464 Current Topics in Human Resources    | 3       |
- MGT 364 Human Resources Management              | 3       |
- MGT 367 Employee and Labor Relations            | 3       |

TOTAL (7 courses) (21)³

**School Psychology Minor**

The School Psychology minor focuses on the role of psychology in the field of education. Students gain knowledge of psychological development, applied behavior change and different types of psychological and educational assessment. This minor, which is of special value to students interested in education, testing, or working with children, is open to majors and to non-majors who take the prerequisite courses.

(Note: Non-majors must complete PSY 101, 102, and 201 before beginning the minor.)

- PSY 203 Developmental Psychology                 | 3       |
- PSY 370 School Psychology                        | 3       |
- PSY 373 Behavior Modification                    | 3       |
- PSY 395 Assessment in the Behavioral Sciences    | 3       |
- PSY 498D Practicum: School Psychology            | 3       |
- Restricted elective: one course in education or sociology selected in consultation with adviser | 3       |

TOTAL (6 courses; 9 for non-majors) (18 or 27)

**Social Sciences Minor in Child, Family and Community Studies**

This social science interdisciplinary minor is co-sponsored by the Department of Psychology and the Department of Sociology, Anthropology and Criminal Justice. It is intended for students seeking a deeper understanding of the dynamics of family relations and the interaction of the family with society. Its mission is to prepare undergraduate students for careers and future graduate studies in the fields of education, social work and social services. Embedded within the interdisciplinary focus of the minor is an emphasis on creating reflective and compassionate practitioners who are committed to the Jesuit ideal of men and women for others.

**Prerequisite courses (2 of the following):**

- PSY 101 Introduction to Psychology¹            | 3       |
- PSY 102 Introduction to Psychology              | 3       |
- SOC 110 Introduction to Sociology               | 3       |
- COM 204 Interpersonal Communication             | 3       |

**Prerequisite courses (2 of the following):**

- PSY 314 Child, Family and Community             | 3       |
- COM 304/WST 376 Family Communication             | 3       |

¹ Students may elect PSY 101 or PSY 102, but not both.

³ Students may not take PSY 229 and MGT 360 in the same semester.

⁴ In addition to the required course work, all students are encouraged to take a practicum/internship at a placement related to Industrial/Organizational Psychology.
CRJ 337/WST 337 Violence in the Family (3)

One course from each of the following areas:

Children:
PSY 203 Developmental Psychology (3)
PSY 307 Adolescent Psychology (3)
PSY 384 Child Psychopathology (3)
EDE 273 Human Growth and Development: Birth through Childhood (3)
EDU 351 Human Growth and Development: Pre-Adolescence and Adolescence (3)
EMC 352 Human Growth and Development: Middle Childhood (3)

Family:
CRJ 354 Juvenile Delinquency (3)
PSY 333/SOC 333/GRN 333 Foundations of Social Gerontology (3)
SOC 372 Sociology of Mental Illness (3)
PSY 382/CRJ 382 Drugs and Behavior (3)
SOC 390/WST 390 Marriage and Family in Early Childhood (3)

Community:
COM 101 Communications in Contemporary Society (3)
SOC 255 Introduction to Human Services (3)
PSY 370 School Psychology (3)
PSY 321/SOC 321/GRN 321 Ethics & Human Services (3)
SOC 341 Race and Ethnic Relations (3)
SOC 350/GRN 350 Programs and Policies for the Aging (3)
EDY 313 Family and Community Involvement Service Learning: 20 hours required for minor.

TOTAL: (7 courses) (21)

Sports Psychology Minor
The Sports Psychology minor focuses on how psychological factors affect behavior in sports and athletics and on how participation in these activities affects the athlete. Students study social perception, motivation, group dynamics, development of motor skills, leadership, aggression and other topics essential to working with teams and individual athletes for careers in coaching, education, research/teaching or counseling.

(See Note: Non-majors must complete PSY 101, 102, 201, and 202 before beginning the minor.)

Required for Physical Education courses
PED 351 Coaching Theory and Technique (3)
PED 381 Motor Behavior (3)
PED 461 Sports Psychology (3)

Psychology courses required for the minor:
PSY 329 Leadership and Motivation (3)
PSY 373 Behavior Modification (3)
Other courses required for the minor: (2 of the following)
BIO 107/107L Anatomy (4)
BIO 108/108L Physiology (4)
PSY 391 Biopsychology of Stress (OR advisor-approved substitution) (3)
PSY 498 or PEM 498 Practicum (strongly recommended) (3)

TOTAL (7 courses) (21-23)

Recommended Area Studies Courses: RST 448, RST 340, PHI 301, PHI 303, PHI 342
Recommended Elective: PSY 318

Other Programs

Psychology/Biology Dual Major
A dual major in Psychology and Biology exists for students with an interest in both fields and seeking a combined educational program. Cross-listed courses are available to serve simultaneously as electives in both departments.

Psychology/Criminal Justice Dual Major
Students interested in forensic psychology or the application of psychology to the legal and criminal justice systems may wish to combine Psychology and Criminal Justice courses into a dual major. Cross-listed PSY/CRJ courses (Abnormal, Counseling, Drugs and Behavior and Forensic Psychology) facilitate this dual major and an accompanying minor in Forensic Psychology. Detailed information may be obtained from the Psychology Department.

Psychology/English Dual Majors
Psychology and English both have human experience as their subject matter and both strive to develop students’ abilities to think critically, logically and creatively. Studied together, these disciplines enrich students’ abilities to create and understand characterizations of personality and normal and abnormal behavior, increase their understanding of the impact of social forces on the individual, and help them gain a greater appreciation of individual differences (e.g., children versus adults) in cognitive and emotional functioning.

Neuroscience: A Neuroscience minor administered in the Biology Department is pertinent to those Psychology majors interested in brain-behavior relationships.

Zoo Biology: The Zoo Biology minor administered in the Biology Department may be attractive to those Psychology majors interested in zoo-based careers working with animals.


Note: PSY 101-102, or permission of the instructor, is a prerequisite for all courses at the 200 level or higher.

PSY 101 Introduction to Psychology I
The study of behavior from a psychological perspective. Topics include: motivation and emotion, thinking and language,

* Students taking PSY 101 or 102 are expected to be available for participation in research studies or equivalent activity.
learning, memory and physiological basis of behavior. Methods of psychological inquiry. (AS II)

**PSY 102 Introduction to Psychology II**  
3  
The study of behavior from a psychological perspective. Topics include: human development, social behavior, psychological testing - personality, psychopathology and psychotherapy, and intelligence. Methods of psychological inquiry. May be taken before PSY 101. (AS II)

**PSY 201 Basic Statistics for Behavioral Sciences**  
3  
Descriptive statistics, probability, sampling distributions, hypothesis testing, and inferential statistics. SPSS for Windows. (AS VII)

**PSY 202 Experimental Psychology**  
3  
Philosophical measurement and statistical concepts of common methods of experimental and non-experimental research. Design and execution of project required. **Prerequisite:** PSY 201.

**PSY 203 Developmental Psychology**  
3  
Important factors in the psychological development of the child. Social, biological, and historical antecedents of behavior from birth through puberty.

**PSY 229 Industrial/Organizational Psychology**  
3  
Selection, evaluation and training of personnel, facilitation of group dynamics on the job, leadership, worker motivation and effects of workplace environment on performance and morale.

**PSY 235 Health Psychology**  
3  
Psychology of health-related behaviors, including coping with stress and ill health, physician-patient relationships, compliance with medication and psychological influences on specific disorders. Students conduct personal stress assessments and design interventions.

**PSY 255 (GRN 255, SOC 255) Introduction to Human Services**  
3  
See GRN 255.

**PSY 302 Personality Theory**  
3  
Major contemporary systems for describing and predicting human behavior: Freudian, neo-Freudian (Adler, Sullivan, Jung), behavioristic, mathematical, humanistic and existential. (AS II) **Prerequisite:** Junior or Senior status.

**PSY 303 (CRJ 303) Abnormal Psychology**  
3  

**PSY 307 (CRJ 307) Adolescent Psychology**  
3  
Physiological, psychological and emotional factors in achieving maturity. Extension of theoretical orientation to adolescent problems. Emphasis on real world problems and solutions.

**PSY 315 (BIO 315) Comparative Animal Behavior**  
3  
Behavior of a wide range of species. Similarities and contrasts with humans examined.

**PSY 315L (BIO 315L) Comparative Animal Behavior Laboratory**  
1  
Lab and field exercises illustrate concepts from class. **Prerequisite:** Concurrent enrollment in PSY 315.

**PSY 316 (BIO 316) Social Organization of Mammals**  
4  
Behavior and social structures of rodents, felines, canines, cetaceans, elephants, monkeys, apes and humans. **Prerequisite:** BIO 101-102, 201.

**PSY 316L (BIO 316L) Social Organization of Mammals Lab**  
0  
Observation of animal groupings at local zoos and aquariums. Lab is required.

**PSY 317 (BIO 317) Sex, Evolution, and Behavior**  
3  
Focus is on how evolutionary perspective accounts for male-female differences in lifestyle and behavior across diverse animal species, including humans.

**PSY 318 (WST 380) Social Psychology**  
3  
The self in social interaction: social perception and cognition, development and maintenance of relationships, attitudes, prejudice, social influence, group dynamics, and related gender issues. (AS II)

**PSY 321 (GRN 321, SOC 321, CRJ 322) Ethics and Human Services**  
3  
See GRN 321.

**PSY 324 (CST 324) Cognitive Psychology**  
3  
The psychological processes that enable us to acquire, store, retrieve and use knowledge. Topics include: perception, memory, language, thinking, decision making. Applications in psychology, computer science, business, education.

**PSY 325 (BIO 325) Reproductive Biopsychology**  
3  
Neuro-endocrine mechanisms underlying sexual behavior, pregnancy and parental care. Equal focus on animal and human behavior.

**PSY 329 Leadership and Motivation**  
3  
Determinants of leadership effectiveness, factors influencing effectiveness in maintaining leadership position, influencing followers and accomplishing group objectives. Emphasis on communication competencies, group interaction, experiential learning. **Prerequisite:** Junior or senior status.

**PSY 333 (GRN 333, SOC 333) Foundations of Social Gerontology**  
3  
See GRN 333.

**PSY 334 (CRJ 334, GRN 334) Child, Family and Community Psychology**  
3  
Effects of social and non-social environments on emotions, thoughts and behaviors. Psychological reactions and adjustments to the nature of community life. Deals with social problems such as AIDS, alcoholism, and child and elder abuse.

**PSY 350 (BIO 350) Zoo Biology**  
4  
The roles of zoos in conservation, education, and research. Environmental, genetic, nutritional and psychological factors in the management of captive animal populations and species survival plans. Lab is required.

**PSY 350L (BIO 350L) Zoo Biology Lab**  
0  
Laboratory exercises in enrichment and numerous experimental field trips to nearby zoos and aquariums.

**PSY 352 Learning**  
3  
Animal conditioning research and human learning and memory research with emphasis on both theory and principles. Lab data collection on animals required. **Prerequisites:** PSY 201-202 or permission of instructor.

**PSY 355 (BIO 355, CSI 355) Behavioral Neuroscience**  
3  
Functions of nervous/endocrine systems in mediating motivation, movement, sensation, ingestion, aggression, emotion, sleep, learning, memory, thought and behavior disorders. **Prerequisites:** BIO 101-102, 201.

**PSY 369 (CRJ 369) Forensic Psychology**  
3  
Psychology's role in legal system; criminal behavior; trial process (competency evaluation, psychologists as expert witnesses, jury selection, jury deliberation, insanity defense); law enforcement and corrections; family law (divorce, domestic violence, child custody).

**PSY 370 School Psychology**  
3  
Psychological principles as applied to school environments. Assessment, classroom environments, consultation and planning. Visits to schools. **Prerequisites:** PSY 201; PSY 373 recommended.

**PSY 373 Behavior Modification**  
3  
Application of conditioning principles to changing human behavior and cognitions; emphasis on practical problems. **Prerequisite:** Psychology majors or permission of instructor.

* Students taking **PSY 101 or 102** are expected to be available for participation in research studies or equivalent activity.
PSY 384 Child Psychopathology
This course will introduce students to the signs and symptoms of various psychiatric disorders of childhood and adolescence (e.g., conduct disorder, ADHD).

PSY 391 Biopsychology of Stress
Examines the physiological and psychological components and effects of stress, including the involvement of the nervous, immune and endocrine systems.

PSY 395 Assessment in the Behavioral Sciences
Overview of measures of intelligence, personality, achievement and aptitude for clinical, industrial and research use. Students construct and validate psychological tests. Prerequisite: PSY 201.

PSY 397 Neurobiology of Mental Disorders
Examines the role of the central nervous system and other biological factors underlying the symptoms, etiology and treatment of various mental disorders.

PSY 452 Theories and Techniques of Counseling
Theoretical foundations of counseling and psychotherapy with an emphasis on the mastery of technique and practical applications. Assessment and treatment planning to facilitate cognitive, emotional and behavioral change for a variety of patient populations.

PSY 495 Research Seminar in Psychology
Opportunity for students interested in designing and conducting empirical research to collaborate with faculty in research activities leading to undergraduate or professional conference presentations and possible publication. Prerequisites: PSY 201-202, PSY 497. Junior or senior status, and permission of instructor.

PSY 497 Advanced Experimental Research
Intended for advanced students with the interest, prerequisites and commitment to experimental research. Involves students in hands-on data collection and statistical analysis. Prerequisites: PSY 201-202. Junior or senior status, and permission of instructor.

PSY 498 Psychology Practicum
Internships are available in animal behavior, clinical counseling psychology, forensic psychology, industrial/organizational psychology, counseling, school psychology, sports psychology, and leadership mentoring. Joint supervision by staff members and agency personnel. Registration requirements vary; six credit maximum. Prerequisite: Permission of chair and relevant staff member.

PSY 499 Independent Study
Research or directed study under the supervision of a staff member. Up to three credits per semester for maximum of six credits. Prerequisite: Permission of chair and relevant staff member.

A total of only 6-credit hours from PSY 495, 497, 498 and 499 collectively may be counted towards the 30-credit hours in the psychology major.

| Additional hours of these courses may be taken for college elective credit. |
Religion plays an important role in human life and history everywhere, and a liberal education would be seriously incomplete if it did not provide some of the intellectual tools necessary for dealing with this important dimension of human life.

The department expresses the religious dimension of the college's founding in the Jesuit and Catholic tradition, and its orientation is to serve the community that shares the values of that tradition.

The specific aims of Religious Studies and Theology are: (1) To help develop an inquiring mind in matters of religious import by acquainting the student with the role religion has played and is now playing in the total development and life experience of humanity; (2) To provide the student with the methodological tools, both scientific and theological, for the academic study of religion; and (3) To help students appreciate the religious viewpoints and values within their own community and in the broader community of humankind.

To these ends, the department presents in its courses a scientific and theological study and appreciation of the unique approaches of Roman Catholicism, other confessional Christian churches, Jewish religious thought and other religions. This ecumenical approach also attempts a comparative study of religions and a positive approach to the varieties of non-religion, such as atheism. The department provides the opportunity for a more mature and authentic appraisal of religious faith in the 21st century through the study of primary source materials — scriptural, historical and theological — and academic studies of religion.

A major in religious studies and theology provides a broad intellectual context for those who wish to study religion in greater depth. The major program offers courses in five different areas: World Religions, Judeo-Christian Origins, History of Christianity, Christianity in the Modern World and Systematic Theology.

Admission
Admission to the major program is contingent on departmental approval.

Religious Studies and Theology Curriculum
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses)(12)
2. Area Studies: Two courses from each of these areas:
   I, II, III, IV, V, VII, VIII (14 courses) (42)
3. Major course requirements: (10 courses)
   RST 200 Introduction to the Old Testament (3)
   RST 210 Introduction to the New Testament (3)
   RST 400 Religious Studies and Theology Seminar (3)
   RST 489 Projects for Majors (3)
   Religious Studies and Theology electives: six courses.
   Electives should be concentrated in three of the five areas
   offered in the Religious Studies and Theology program. (18)
4. Electives (12 courses) (36)
TOTAL (40 courses) (120)

Recommended Schedule

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| **Sophomore Year** | |
| PHI 101 | 3 | AS | 3 |
| RST 210 | 3 | AS | 3 |
| AS | 3 | RST elective | 3 |
| AS | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

| **Junior Year** | |
| RST elective | 3 | RST elective | 3 |
| RST elective | 3 | AS | 3 |
| AS | 3 | AS | 3 |
| AS | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

| **Senior Year** | |
| RST 489 | 3 | RST elective | 3 |
| RST elective | 3 | RST elective | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

**TOTAL** | 120

1 Area VI is automatically fulfilled because this program is in the religious studies and theology area.
Minors
The Religious Studies and Theology Department offers a minor in the general area of religious studies for those seeking an overview of the field, as well as minor tracks in three specialty areas within the discipline.

Religious Studies and Theology Minor

Track 1: Religious Studies and Theology
Biblical studies (RST 200 or 210) (3)
Survey of world religions (RST 218 or 220) (3)
Christian tradition(s): one course2 (e.g., RST 260, 340) (3)
Religious Studies and Theology electives: three upper-level (200 or above) courses2 (9)
TOTAL (6 courses) (18)

Track 2: Biblical Studies
RST 200 Introduction to the Old Testament (3)
RST 210 Introduction to the New Testament (3)
Biblical studies electives: four upper-level (200 or above) courses2 (12)
TOTAL (6 courses) (18)

Track 3: Christian History, Thought and Ethics
Christian history: one course2 (e.g., RST 215, 216, 221, 223, 224, or 260) (3)
RST 340 Moral Issues Today (3)
Religious Studies and Theology electives: four upper-level (200 or above) courses2 (12)
TOTAL (6 courses) (18)

Track 4: Religions of the World
RST 218 Introduction to Western Religions (3)
RST 220 Introduction to Eastern Religions (3)
Religious Studies and Theology electives: four upper-level (200 or above) courses2 (12)
TOTAL (6 courses) (18)

Interdisciplinary Minor in Catholic Studies
The Religious Studies and Theology department is the administrative center for an Interdisciplinary Minor in Catholic Studies. This minor has six required courses: RST 231, CTH 400 and four other courses. These are taken in each of four areas: Catholic Theology and Life; Catholic History and Politics; Catholic Social Thought and Philosophy; Catholic Culture: Literature, Art, Music and Science. For further information, see Catholic Studies in the “Special Programs” section of this catalog.

2 To be selected in consultation with a faculty advisor in the department.


INTRODUCTORY LEVEL

RST 101 Introduction to Religious Studies and Theology 3
Nature and role of religion in human life and society. Religious viewpoints, values and practices within Judeo-Christian tradition and world at large. Methodological tools, both scientific and theological, used in academic study of religion.

INTERMEDIATE LEVEL:

RST 200 Introduction to the Old Testament 3
Introduction to the literature of the Old Testament within its ancient Near Eastern setting. Particular attention paid to historical, literary, cultural and theological questions. (AS VI)
RST 210 Introduction to New Testament 3
Introduction to the literature and background of the New Testament. (AS VI)
RST 215 (HIS 215) History of Christian Community 1 3
Historical study of life, thought and worship of the Christian community from first-century beginnings to the eve of the sixteenth-century reformation. (AS VI)
RST 217 History of the Christian Community 3
Historical study of the life, thought and worship of Christians, both Protestant and Catholic, from the Reformation to the present.
RST 218 Introduction to Western Religious Tradition 3
Introduction to and survey of the western religious tradition, including the ancient Near East, Greece and the great traditions of Judaism, Islam and Christianity. (AS VI) (ICD)
RST 220 Introduction to Eastern Religions 3
History, meaning and practice of living religions, such as Hinduism, Buddhism and Islam. (AS VI) (ICD)
RST 225 Religion and Society 3
Relationship of religion and society. Sociological theories of religion. Concrete interaction of religion and society in U.S. and other cultures. (AS VI)
RST 230 Catholic Belief Today 3
Scripture and tradition. The Trinity, incarnation, grace, sacramental life, worship. The Church as community and structure. (AS VI)
RST 231 Introduction to Catholic Studies — Origins of Catholicism 3
Major movements and personalities in Catholic theology, history, culture and spirituality. The Catholic worldview and its relation to modern society. (AS VI)
RST 235 Religion and Politics 3
Interaction of religion and politics in the United States. Christian understanding of religion and politics in other cultures. (AS VI)
RST 236 Theology and Film 3
Analysis of a selection of foreign films to understand the artists’ positions regarding the nature of humanity, of God and of other theological themes. (AS VI)
RST 240 The Development of Jewish Religious Thought and Practice 3
Jewish religious thought from biblical times to the present: Hebraism and Judaism in pre-Christian times, Jesus and Jewish thought and modern trends in Judaism. (AS VI)
RST 250 Biblical Greek 3
Introduction to Greek with focus on grammar, vocabulary, and syntax of the koine Greek used in the New Testament. Taught as a private study. Prerequisite: Permission of chair.
RST 251 Greek Exegesis 3

RST 300 The Problem of Suffering 3
Suffering confronts each individual in illness, broken relationships, failures, drug abuse and death. The course addresses how God is active even in suffering. (AS VI) 2005-2006 only

RST 301 The First Three Gospels 3
Portraits of Jesus in Matthew, Mark, Luke and “Q” leading to the question of the historical Jesus, against the backdrop of history and religions of New Testament times. (AS VI)

RST 305 The Life and Teachings of Jesus 3
Contemporary approach to the life and teachings of Jesus with focus on the Kingdom, prayer and especially parable teaching. (AS VI) 2005-2006 only

RST 308 Pagans and Christians (CLS 308, HIS 308) 3
Religious thought and action in Late Antiquity, the 3rd through 8th centuries AD, the idea of the holy; manifestations of the sacred; body, soul, cosmos; Christianity and classical culture; Neoplatonism. (AS VI)

RST 309 (CLS 309) Greek and Roman Religion 3
Religious thought and action in ancient Greece and Rome from Homer through the 2nd century AD. Polytheism, anthropomorphism, ritual, cult and sacrifice. (AS VI)

RST 310 Matthew: The Church’s Gospel 3
A contemporary, literary, historical and social interpretation of the Gospel of Matthew. (AS VI)

RST 311 Paul and His Churches 3
Survey of St. Paul’s theology and mission, the variety and controversies of the early church.

RST 312 The Gospel, Letters and Revelation of St. John 3
The gospel message analyzed in Jesus’ words and deeds. The symbols of Revelation seen in their historical and contemporary meaning. (AS VI)

RST 314 New Testament in Literature and Art 3
New Testament themes and personalities analyzed from scriptural perspective and compared with expressions in arts. Relationship of religion and art; scriptural roots of Christian art. (AS VI) 2005-2006 only

RST 315 Ancient Israelite Prophecy 3
The nature of ancient Israelite prophecy and the major prophets of the Old Testament. Emphasis on the development of prophecy in social and historical context. (AS VI)

RST 319 Jesuits: History, Spirituality, Culture 3

RST 321 New Testament Society 3
Recent sociological and cultural-anthropological interpretation of the New Testament and its ancient environment. (AS VI)

RST 326 Freedom, Sin, and Grace 3
What is humankind? What are our possibilities, radical problems, resources? What Christian faith has to offer as answers to these and other universal human questions. (AS VI)

RST 328 Sacramental Theology 3
The presence of God in the midst of the human community, as symbolized by the sacraments. Their history, interpretation and anthropology. (AS VI) 2005-2006 only

RST 332 Islam: Tradition and Revival 3
From pre-Islam: Arabia to Muslim reform in the modern world. Islamic cult, institutions and faith. Islam in Africa, Asia and the Middle East today.

RST 340 (GRN 340) Moral Issues Today 3
An inquiry into religious and secular approaches to morality and the issues raised by specific moral problems. (AS VI)

RST 343 Religion and the Challenge of Science 3
Traces the emergence of science as independent from and a challenge to the religious world view. (AS VI)

RST 344 Theology of Family Process 3
Bible and religious ideals of Judaism, Catholicism, Protestantism. Current ethical issues: intimacy, relationship, power. Relevancy of love to sex, marriage, family. Experimental projects. Communication styles. (AS VI)

RST 350 Christian Concept of God 3
Concept of God in light of Biblical faith. Historical development and modern approaches to the Christian doctrine of God. (AS VI)

RST 354 Jesus Christ and Modern Man 3
An historical-theological inquiry into the person of Jesus of Nazareth. (AS VI)

RST 359 Revelation and Faith 3
Exploration into meaning of revelation and its correlative, faith, in light of modern challenges to these foundational concepts. (AS VI)

RST 360 Magic, Science and Religion 3
Scholarly approaches used to understand how diverse peoples of the world conceive, make use of, and tap into the realm of the extrahuman. Focus on “exotic” societies and peoples, exploration of the meanings of magic, science and religion in the more familiar contemporary Unites States and Europe.

RST 362 Fundamentalism 3
Critical study of religious fundamentalism in a variety of religious traditions and cultural and geographical contexts. Historical, anthropological and sociological methodologies applied to the academic study of religion.

ADVANCED LEVEL

RST 400 Religious Studies and Theology Seminar 3
A seminar for RST majors and minors, focusing on the history of theory and method in the academic study of religion.

RST 402 Christianity in the New World 3
A study of Third World Christianity by immersion in different areas of Third World Countries. Prerequisite: RST 217.

RST 405 Biblical Archaeology 3
Contributions of Syro-Palestinian and other ancient Near Eastern archeological information to reconstructing the social world, history and religion of ancient Israel. (AS VI)

RST 420 (WST 420) Feminine Role in Religion 3
Feminine symbolism and mythologies dealing with feminine archetypes in ancient religions and contemporary cultures: women in the Bible. The feminine in current psychology and theology. (AS VI)

RST 421 Hinduism 3
Development of classical and contemporary styles of Hindu religious thought and practice; from the Vedas to Hare Krishna; from Patanjali to TM. (AS VI) (ICD)

RST 445 Christian Spirituality 3
Historical, analytical and appreciative study of the fundamental principles and development of Christian ascetical theology. (AS VI)

RST 452 Theology of Evil 3
Pain, suffering, tragedy. How the problem is dealt with in the Old Testament, New Testament and in some Eastern religions and in the works of various Western philosophers: The concept of a suffering God. 2005-2006 only

RST 453 (GRN 453) Theology of Death 3
RST 489 Projects for Majors 3
Concentrated investigation of a topic of particular interest to the student, under supervision of faculty advisor. Prerequisite: Departmental approval.

RST 496 Internship 3
Combination of teaching or religious work with special readings and theological reflection, under the guidance of department faculty. Prerequisite: Consent of chair. No AS credit.

RST 499 Independent Study 3
Student development of private or group reading or research program with permission of chair and instructor.

INTERDISCIPLINARY

RST 448 (BIO 448, GRN 448) Bio Moral Problems 3
Considers a number of problem areas such as genetic intervention, medical experimentation, behavior control, organ transplants and resource allocation and death and dying. (AS VI)

ZPR 351 Catholic Social Thought & Theological and Philosophical Perspectives 4
Analysis of Catholic social principles and their time-conditioned application, especially through examination of papal social encyclicals and documents of the U.S. Catholic bishops.
The social science major deals with mankind's political, social, economic and psychological interrelatedness as studied in the fields of sociology, anthropology, history, political science, communication studies, economics and psychology. Students in this program develop and refine their insights into human behavior through a wide range of social observation, inquiry and study. By allowing a considerable degree of freedom in choosing electives, the program permits a meaningful flexibility not found in more restrictive curricula.

Social Sciences Curriculum
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, III, V, VI, VIII. Two courses from Area IV if history is not included in major course requirements. One course from Area VII. (11 or 13 courses) (33 or 39)
3. Major course requirements: (21 courses)
   Basic social sciences: four courses each from four of the following departments, for a total of 16 courses:
   - Anthropology: ANT121-122 plus two 300/400 level courses
   - Communication Studies: two of the following:
     - COM 201, 202, 203, 204, 205, 206, plus two 300/400 level courses
   - Economics: ECO 101-102, plus two 300/400 level courses
   - History: HIS 123-124, plus two 300/400 level courses
   - Political Science: PSC 103-104 plus two 300/400 level courses
   - Psychology: PSY 101-102, plus two Psychology courses above 100 level
   - Sociology: SOC 110 and SOC 111, plus two 300/400 level courses
   Three additional 300/400 level courses in one of the chosen departments: Interdisciplinary courses may be substituted for one or more department courses (9)
   MAT 131 Statistics and Computers (3)
   Social Sciences methods: PSC 217, SOC 342, or URS 350 (3)
4. Electives (4 or 2 courses) (12 or 6)
TOTAL (40 courses) (120)

Recommended Schedule
(Variants for History as part of concentration are in brackets.)
FALL SPRING
Freshman Year
ENG 101 3 ENG 102 3
AS 3 AS 3
AS 3 AS 3
Social Science elective 3 Social Science elective [HIS 123] 3
Social Science elective 3 Social Science elective [HIS 124] 3
Total 15 Total 15
Sophomore Year
RST 101 3 PHI 101 3
MAT 131 3 Social Science elective 3
Social Science elective 3 Social Science elective 3
Social Science elective 3 Elective 3
AS 3 Total 15
Total 15
Junior Year
Social Science elective 3 Social Science elective 3
Social Science elective 3 Social Science elective 3
Social Science methods 3 Concentration elective 3
AS 3 AS 3
AS 3 [Elective] 3
Total 15 Total 15
Senior Year
Social Science elective 3 Social Science elective 3
Social Science elective 3 Social Science elective 3
Concentration elective 3 Concentration elective 3
AS 3 AS 3
AS 3 [Elective] 3
Total 15 Total 15
TOTAL 120

Associate of Arts Degree
The associate of arts degree program in social sciences requires the completion of 60 credits of coursework. This program has two basic purposes: (1) It offers an immediate degree goal for students seeking a general introduction to the social sciences (psychology, sociology, political science, economics, and anthropology); and (2) It provides a basic foundation for those who wish to go on for a bachelor's degree.

The program contains a second track designed for the prospective business major. Students who plan baccalaureate studies in the future are encouraged to choose the track which is more appropriate for them. If a student remains at Canisius College, all of the coursework in the associate degree program is transferable and applicable to the bachelor's program.
Social Sciences Curriculum (Associate Degree)

1. ENG 101, ENG 10 2, PHI 101, RST 101 (4 courses) (12)

2. Area Studies:
   - Two courses from each of these areas: IV, VIII.
   - One course from each of these areas: I, III, V, VI (8 courses) (24)

3. Major course requirements: (8 or 6 courses)

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<tr>
<td>MAT 131 Statistics and Computers</td>
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Social Sciences electives: two courses from each of three areas:
- Economics (ECO 101-102)
- Political Science (PSC 101-102)
- Psychology (PSY 101-102)
- Sociology (SOC 110-111) (18)

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<td>MAT 106 Calculus for the Non-Sciences I</td>
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<td>ECO 101 Principles of Macroeconomics</td>
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4. Electives

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Recommended Schedule:

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TOTAL 60

Other Associate’s Degree Regulations

The basic residency requirement for A.A. degrees is 30 credit hours, at least 15 of which must be completed in traditional classroom situations. No more than 30 hours may be transferred from another institution. Not all courses at other institutions are applicable to the associate degree, and transfer students are required to have a transfer evaluation completed by the college.

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1. Area II and one course in Area VII is automatically fulfilled by the required courses in those areas.
2. It is recommended that students in the Business Track who plan to pursue a bachelor's degree with a major in accounting take ACC 211-212.
3. It is recommended that students in the business track take courses in the business core as their electives. Students intending to pursue a four-year degree should take ECO 255.
The Department of Sociology, Anthropology and Criminal Justice offers courses leading to the bachelor of arts degree in sociology, anthropology and criminal justice. Minors are also available in each of the areas.

Sociology, anthropology and criminal justice are concerned with the systematic study of behavior and human groups. An important goal of the majors is to identify underlying, recurring patterns of and influences on social behavior. A second goal is to provide explanations for such patterns. The tools of sociology, anthropology and criminal justice include survey research, interviews and observations of behavior in natural settings.

A degree in sociology, anthropology or criminal justice prepares students for graduate study in sociology, anthropology, criminal justice, social work, law, education, the health-related professions, or business. Majors are prepared for jobs in many fields, including human services, law enforcement, government and business.

**Anthropology Major (H. James Birx, advisor)**

Anthropology is the scientific and holistic study of humankind, including its cultural, social, linguistic, biological-evolutionary, environmental and historical dimensions. Highly interdisciplinary, it draws on methods and theories from both the social sciences and humanities. Historically, anthropology differed from sociology by focusing on the study of non-western, small-scale societies, using long-term participant observation among the people studied. Presently, the two fields are drawing closer together, using similar methodologies and theories to understand both western and non-western societies and their interactions. In addition to preparing the student who majors in anthropology for graduate study in anthropology, students are well-prepared for careers in business, law, health-related professions and human services.

**Sociology Major (Patricia B. Christian, advisor)**

Sociology is the study of human behavior and of the social structures and social forces that influence human behavior. The sociologist looks beyond individual psychology and unique events to the broad patterns and regular occurrences of social life that influence our individual behavior and attitudes. For example, a sociologist might examine how women’s increased participation in the labor force has affected the distribution of tasks in the household. The sociology major prepares students for a wide variety of careers and graduate fields, including sociology, social work, education, business and law.

**Criminal Justice Major (Patricia E. Erickson, advisor)**

The Criminal Justice major is designed to help students understand the complexity of dealing with crime and criminal behavior and to introduce them to the problems and stresses encountered by professionals in the field. The major is grounded in a liberal arts curriculum; it emphasizes not only how the criminal justice system has developed in its present form, but also how changes in the system affect other parts of society. In addition, the major is constructed to prepare students for a broad spectrum of occupations, including law enforcement, corrections and allied mental health. Finally, students who wish to pursue careers as lawyers can major in criminal justice and also take advantage of the college’s pre-law program.

**NOTE:** A comprehensive examination in the student’s major will be administered during the student’s senior year.

**Other Programs**

**Dual Majors:** Many of the department’s majors find it desirable to combine Sociology, Anthropology or Criminal Justice with a major in another department within Arts and Sciences. Recent examples have included Biology, History, Psychology, Political Science, Modern Languages and Communication Studies. The sequence of courses for dual majors is the same as for regular majors. To provide for maximum flexibility of scheduling, students interested in dual majors should consult with a member of the department to arrange their individual schedules.
in both departments. Students interested in pursuing this interdisciplinary concentration are urged to consult with Dr. Erickson.

**Minor in Child, Family and Community Studies**
An interdisciplinary social science minor child, family and community studies is offered through the departments of Psychology and Sociology, Anthropology and Criminal Justice. More information about the minor can be obtained from Dr. Erickson (Sociology, Anthropology and Criminal Justice) or Dr. Sanders (Psychology).

**Internships**
Many internship opportunities are available for juniors and seniors. As an urban center situated on the Niagara Frontier, Buffalo offers numerous and diverse opportunities for students to explore careers and get valuable experience, as well as connecting what they learn in the classroom with life in the “real world.” Additionally, many alumni of the college are employed in the criminal justice system and various social service agencies, providing access to internships and employment opportunities.

**Admission**
Students wishing to major in Sociology, Anthropology or Criminal Justice should fill out a “Major Declaration Form” available in the department office (Old Main 014). They must also inform the registrar of their intended major.

**Note:** A number of courses in one major will be accepted as counting toward another major in the department. The following courses will be accepted for sociology credit: CRJ 254 Crime and Society, CRJ 343 Law and Society, CRJ 344 Violent Crime in American Society, CRJ 354 Juvenile Delinquency and ANT 122 Sociocultural Anthropology. The following courses will count towards the criminal justice major: ANT 333, Forensic Anthropology, ANT 351, Qualitative Research Methods, SOC 342 Research Methods, SOC 355, Deviant Behavior and SOC 372, Sociology of Mental Illness.

**Anthropology Curriculum**
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas:
   III, IV, V, VI, VIII. One course from Area I (13 courses) (39)
3. Major course requirements: (11 courses) (33)
   ANT 121 (AS I) Physical Anthropology
   ANT 122 (ICD) Cultural Anthropology
   ANT 250 (LIN 250) Contemporary Linguistics
   ANT 320 Introduction to Archaeology
   ANT 351 Qualitative Research Methods
   ANT 451 Theoretical Anthropology
   Anthropology electives: five courses
4. Free Electives (12 courses) (36)
TOTAL (40 courses) (120)

**Recommended Schedule**

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<thead>
<tr>
<th>FALL</th>
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<tr>
<td>ENG 101</td>
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<td>ANT 121</td>
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**Sophomore Year**
| PHI 101 | 3 | RST 101 | 3 |
| ANT 250 | 3 | ANT 230 | 3 |
| AS | 3 | AS | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

**Junior Year**
| ANT Elective | 3 | ANT Elective | 3 |
| ANT 351 | 3 | Elective | 3 |
| AS | 3 | AS | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

**Senior Year**
| ANT Elective | 3 | ANT Elective | 3 |
| ANT Elective | 3 | Elective | 3 |
| AS | 3 | AS | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Total | 15 | Total | 15 |

**TOTAL** (40 courses) (120)

**Criminal Justice Curriculum**
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas:
   I, III, IV, V, VI, VII, VIII (14 courses) (39)
3. Major course requirements: (12 courses) (33)
   PSC 103 Constitutional Foundations of American Government
   SOC 110 Introduction to Sociology
   SOC 342 or ANT 351 Research Methods
   CRJ 227 Introduction to Criminal Justice I
   CRJ 228 Introduction to Criminal Justice II
   CRJ 337 Violence and the Family
   CRJ 449 Criminal Law
   CRJ 450 Criminal Procedure
   CRJ 482 Criminal Justice Ethics
   Criminal Justice Electives: three courses
4. Free Electives (10 courses) (30)
TOTAL (40 courses) (120)

**Recommended Schedule**

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^1Area II is automatically fulfilled because this program is in the social sciences. One course in Area VII is fulfilled by the mathematics requirement.
**Recommended Schedule (continued)**

### Sophomore Year

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### Senior Year

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<td><strong>TOTAL</strong></td>
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**Sociology Curriculum**

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, III, IV, V, VI, VIII and one course from Area VII (13 courses) (39)
3. Major course requirements: (11 courses) (33)
   - SOC 110 Introduction to Sociology
   - SOC 111 Contemporary Social Problems
   - SOC 342 Research Methods
   - SOC 432 Theories in Sociology
   - MAT 131 Statistics and Computers
   - Sociology/Anthropology electives: six courses
4. Free Electives (12 courses) (36)

### Recommended Schedule

#### FALL

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<th>Course</th>
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### Minors

#### Anthropology Minor

The Anthropology minor is designed for the student who is interested in the study of anthropology but is not able to complete the requirements of the major. It is highly appropriate for students in Biology, Art History, Classics, Education, or for any student interested in human diversity and prehistory.

- ANT 121 Physical Anthropology (3)
- ANT 122 Cultural Anthropology (3)
- ANT 230 Introduction to Archeology (3)
- Anthropology electives: two Anthropology electives approved by the student’s Anthropology advisor (6)

**TOTAL (5 courses) (15)**

#### Criminal Justice Minor

The Criminal Justice minor is designed for students who have chosen another academic major (e.g. Psychology, Political Science) but who may have an academic and/or career interest in the area of criminal justice. Two courses are required. Four courses can be chosen from any of the criminal justice offerings, with at least one course at the 300 or 400 level.

- CRJ 103 Constitutional Foundations of American Government (3)
- CRJ 110 Introductory to Sociology (3)
- CRJ elective (4 courses) (12)
- CRJ elective (300 or 400 level): one course (3)

**TOTAL (6 courses) (16)**

#### Sociology Minor

Sociology has a great deal to offer students from other disciplines who do not have room in their curriculum for a dual major. Pre-med students, business majors and education majors can all benefit from the insights into human behavior that come from a familiarity with sociological analysis.

- SOC 110 Introduction to Sociology (3)
- SOC 111 Contemporary Social Problems (3)
- Sociology electives: two courses at the 200-400 level and one course at the 300-400 level (9)

**TOTAL (5 courses) (15)**

ANT 121 (CSI 221) Biological Anthropology 3
Our species in nature: evolutionary theory, principles of heredity, population genetics, human variations, fossil hominids, primate classification and behavior studies. Formerly ANT 221. (AS I)

ANT 122 Sociocultural Anthropology 3
Explores importance of culture in explaining variation in human behavior and beliefs, looking at range of societies from "primitive" to modern industrial states. Formerly ANT 222. (AS II, ICD)

ANT 230 Introduction to Archeology 3
Old and New World sites provide insights into human lifestyles and modes of adaptation.

ANT 250 (LIN 250) Contemporary Linguistics 3
Conveys an understanding of the fundamentals of linguistic theory that contribute to a broader understanding of language.

ANT 261 (RST 221) Native American Religions 3
The nature of indigenous religions in Native American societies and the effects of culture change through contact with other cultures. (AS VII, ICD)

ANT 262 (RST 222) African Tribal Religions 3
The nature of indigenous religions in African societies, the relationship of these religions with African Christianity and Islam, and the influence of indigenous African religions on slave religions in America. (AS VII, ICD)

ANT 310 Archaeology of North America 3
Examines evidence regarding the origins of the first inhabitants of North America, Mesoamerica, South America, and the Caribbean Islands followed by a survey of the archaeological record of different regions of North America. Emphasis placed on understanding adaptation over time of different groups to both their natural and social environment.

ANT 320 (CSI 320) Interpreting Evolution 3

ANT 329 (COM 329, GRN 329) Cross Cultural Communication and Aging 3
The relationship between culture and communication. Aging is a thematic focus for examining differences among North American, East Asian, African and Polynesian cultures.

ANT 330 Field Work in Archeology 3
Includes on-site lectures, excavation techniques, laboratory preparations and short-term research.

ANT 333 Forensic Anthropology 3
Anthropological methods and information used to survey the origin and history of crime science. Emphasis on the use of well-known case studies in order to understand and appreciate the value of forensic investigation.

ANT 351 Qualitative Research Methods 3
Survey of research designs from a qualitative perspective, including field research, participant observation, content analysis, ethnomethodology and focus groups. Analysis and reporting of qualitative data.

ANT 399 Field Work 3
Offers practical experience in a variety of social situations and cultural settings. Observations and research logs are used to provide a basis for analysis. Prerequisite: Permission of department chair.

ANT 451 Theoretical Anthropology 3
Survey of the major theories in anthropology that have played a leading role in shaping how we look at the history and diversity of our biological species, as well as other human societies with different cultures. Examines evolutionism, structuralism, functionalism, diffusionism, configurationalism and modern social or applied anthropology.

ANT 499 Individual Reading and Research 3
For the student with capacity for independent research. Individual projects directed by a member of the department faculty. One or two semesters. Prerequisite: Permission of department chair and faculty member who will direct the research.

CRJ 101 (PSC 101) American Government and Politics I 3
Politics in the context of the American political system. Constitutional framework, public opinion, interest groups, political parties, campaigns and elections. (AS II)

CRJ 103 (PSC 103) Constitutional Foundations of American Government 3
Compares the constitutional provisions for federalism and the legislative, executive, and judicial branches of government with the development of these aspects of American government. (AS II)

CRJ 227 (PSC 227) Criminal Justice I 3
Criminal justice system; justification for punishment, the police, constitutional rights, the prosecuting and defense attorney. (AS II)

CRJ 228 (PSC 228) Criminal Justice II 3
Trial, guilty pleas, sentencing; corrections; the extent and causes of crime and proposals for change and reform.

CRJ 237 (PSC 237, URS 237) State and Local Politics 3
The institutions and policies of state and local governments, with focus on New York State. State and local elections, gubernatorial politics, state legislatures, community politics.

CRJ 254 Crime and Society 3
Theoretical explanations for criminal behavior. Ideas developed for prevention, treatment and punishment of criminal behavior. Both classical and contemporary approaches in criminological thought.

CRJ 303 (PSY 303) Abnormal Psychology 3

CRJ 307 (PSY 307) Adolescent Psychology 3
Physiological, psychological and emotional factors in achieving maturity. Extension of theoretical orientation to adolescent problems. Emphasis on real world problems and solutions.

CRJ 310 - The Death Penalty in the United States 3
Examine the practice of capital punishment in the United States including the history of capital punishment, the procedural rules that govern the imposition of the death penalty and the United States Supreme Court cases in the area are considered.

CRJ 320 (PSC 320) American Constitutional Law I 3
Development of constitutional law in the U.S. from the founding of the Republic to present. Case-study method in selected areas of constitutional jurisprudence.

CRJ 321 (PSC 321) American Constitutional Law II: Civil Liberties 3
Role of modern and contemporary Supreme Court in controversial areas of civil liberties and related questions. Current interpretations of Bill of Rights and Fourteenth Amendment.

CRJ 334 (PSY 334) Child, Family & Community Psychology 3
Effects of social and non-social environments on emotions, thoughts and behaviors. Psychological reactions and adjustments to the nature of community life. Deals with social problems such as AIDS, alcoholism and child and elder abuse.

CRJ 337 (WST 337) Violence and the Family 3
How family dynamics can contain elements that give rise to violence, including "battered women" and abused children. Formerly SOC 437.

CRJ 343 Law and Society 3
The social forces influencing law, focusing on relationship between law, custom and morality. Emphasis on problem areas where law is ineffective. Formerly SOC 443.
CRJ 344 Violent Crime in American Society 3
The nature of violence as a social act and problems in obtaining data on violence. Family violence, effects of the media and collective violence. Formerly SOC 444.

CRJ 345 (PSC 345) International Crime After 9/11 3
Concepts and issues in cross-border organized crime. National, international and local responses. Emphasis on drug trafficking, terrorism and illegal immigration. Guest speakers and video. Prerequisites: PSC 140-150 or CRJ 227-228 or permission of instructor.

CRJ 351 Police and the Community 3
How changes in community standards affect the business of policing. Topics include use of force and private policing.

CRJ 352 (PSC 341) Comparative Criminal Justice Institutions 3
Examination of police organizations, border guards and prison systems in variety of countries. Comparative analysis of contending approaches to common problems. Focus on Western industrialized countries and new democracies.

CRJ 354 Juvenile Delinquency 3
Analyzed as distinct phenomenon related to, yet separate from, the crime problem. Legal processes in delinquency field. Suggested programs for rehabilitation and prevention of delinquency. Formerly SOC 454.

CRJ 356 Treatment of Offenders I 3
Correction theory, offender typologies and nature and diagnosis of offenders.

CRJ 357 Treatment of Offenders II 3
Current and future trends in dealing with criminal offenders. Topics include use of intermediate sanctions, such as community service, as an alternate to incarceration.

CRJ 358 White Collar Crime 3
Crimes committed by “respectable people” in positions of responsibility in private or public sector. Nature of these crimes, how regulatory bodies and legal systems treat these criminals and how they seek to avoid detection and prosecution.

CRJ 359 (WST 359) Women and Crime 3
Classical and contemporary accounts of the etiology of female crime, patterns of female criminal behavior and the role and treatment of women in the criminal justice system.

CRJ 361 (HIS 361) Origins of American Constitutionalism 3
Sources of political ideology and constitutional theory in the American experience from its 17th century beginnings until the Civil War. Recommended for pre-law students.

CRJ 362 (HIS 362) The Constitution in an Age of Crisis 3
American Constitutional theory and practice from Civil War to present. Emphasis on Supreme Court development, economic relationships, civil liberties, civil rights and criminal justice.

CRJ 367 (HIS 367) Slavery 3
An overview of the 500-year African diaspora to the New World. Considers African origins, the Middle Passage, slavery in the Americas (including urban, northern, and Latin American), free blacks, abolitionism and the Civil War. Special emphasis on culture, women and families, and the law.

CRJ 369 (PSY 369) Forensic Psychology 3
Psychology’s role in legal system; criminal behavior; trial process (competency evaluation, psychologists as expert witnesses, jury selection, jury deliberation, insanity defense); law enforcement and corrections; family law (divorce, domestic violence, child custody).

CRJ 370 (PSC 370) Crime and Punishment in American History 3
Infamous crimes from the Puritan witch-hunts to today’s murder trials. Changing trends in punishments from chain gangs and public hangings to juvenile courts. Creation of prisons, asylums and police forces.

CRJ 382 (PSY 382) Drugs and Behavior 3

CRJ 449 Criminal Law 3
The substantive criminal law, including offences against persons, property and public morality with emphasis on New York State Penal Law. Criminal responsibility and defenses. Prerequisites: CRJ 227, CRJ 228.

CRJ 450 Criminal Procedure 3
Key Supreme Court decisions on search and seizure, arrest, interrogation and identification of criminal suspects. Sentencing and punishment, appeal and post-conviction relief. Emphasis on New York law. Prerequisites: CRJ 227, CRJ 228.

CRJ 482 Criminal Justice Ethics 3
The personal, social and criminal justice contexts for understanding justice, crime and ethics. Skills necessary to deal effectively with ethical issues in criminal justice systems. Problems and case studies for active exploration of social issues. Prerequisites: CRJ 227, CRJ 228.

SOC 110 Introduction to Sociology 3
Topics include theory, methods, culture, socialization, race and ethnicity, groups and organizations and social inequality; analysis of everyday events, using sociological imagination. (AS II)

SOC 111 Contemporary Social Problems 3
Exploration of several selected social problems from competing points of view, emphasizing some of the sociological concepts employed in analyzing these problems. (AS II)

SOC 234 Environment and Society 3
Develops an understanding of connections between environmental issues and their social causes through discussion of topics such as environmental law, environmental health, risk and medical knowledge, uncertainty, and natural resource use and the role of the state and globalization in environmental problems. Various solutions will be discussed including the role of social movements, sustainability and politics as tools for addressing the state of our natural environment.

SOC 255 (GRN 255, PSY 255) Introduction to Human Services 3
This course focuses on the social and psychological forces involved in providing human services (with an emphasis on aging related issues and concerns). Theoretical and practical dimensions of providing services will be covered along with the values and social roles inherent in any care-giving situation. The course also examines the conflicts and problems that arise between care givers and recipients.

SOC 291 (WST 291) Gender and Society 3
Exploration of origin of gender roles; socialization into masculine and feminine roles; intersection of gender and social institutions such as family, work and education.

SOC 305 (GRN 305, PHI 305) Time and the Human Condition 3
See PHI 305.

SOC 321 (GRN 321, PSY 321) Ethics and Human Services 3
See GRN 321.
SOC 324 Visual Sociology  3
Emphasizes a visual approach to learning and understanding sociological concepts. Relies on visual media (films, photographic collections, maps, broadcast news segments, etc.) as a means of illustrating core ideas in sociology such as inequality, gender roles and norms, race relations, environment, family structure, among others.

SOC 330 Medical Sociology  3
The social aspects of health, illness, and health care.
Epidemiology, the experience of illness, the evolving health care industry and a comparison of alternative and traditional medicine.

SOC 331 Population and Society  3
Demographic causes and effects of contemporary social issues, such as overpopulation, immigration, urbanization and the spread of AIDS.

SOC 333 (GRN 333, PSY 333) Foundations of Social Gerontology  3
See GRN 333.

SOC 340 (URS 340) Urban Sociology  3
This course traces the origins of cities, beginning in prehistory, through the growth of the mega-cities of the third world occurring now. We will consider immigration, suburbanization, urban sprawl, and globalization. This course includes a service learning component which can be fulfilled in two ways, either participating in the Alternative Spring Break program through Campus Ministry, or by performing 40 hours of service with a Buffalo organization or agency.

SOC 341 Race and Ethnic Relations  3
Competition and conflict in American society as related to racial and ethnic minorities. Patterns of prejudice and discrimination. Techniques for reduction of prejudice and discrimination.

SOC 342 (PSC 217, URS 350) Research Methods  3
Techniques of sociological investigation, and relationships of theory and research. Survey of methods used in the social sciences.

SOC 350 (GRN 350) Programs and Policies for the Aging  3
Review of issues dealing with public policy and programs affecting the elderly.

SOC 355 Deviant Behavior  3
Problems of deviance from a societal and organizational perspective. Current examples of social pressures on “marginal persons” within given social systems. Formerly SOC 455.

SOC 372 Sociology of Mental Illness  3
Defining mental disorder, causes of mental disorder, mental disorder as deviant behavior, mental disorder and the law, social epidemiology.

SOC 390 (WST 390) Marriage and Family  3
History of the family as a social institution; understanding recent trends in relationships, marriage, divorce, childbearing and childrearing; work-family conflict; family policy. (AS II)

SOC 432 Theories in Sociology  3
Theory tries to make sense of problematic aspects of the social world. This course is a survey of major social theorists and modern theoretical schools in sociology and their contributions to understanding phenomena such as the rise of individualism, urbanization, industrialization and the secularization of society. Required for majors, to be taken in the senior year.

SOC 498 Internship  3
Prerequisite: Instructor’s signature.

SOC 499 Individual Reading and Research  3
For the student with capacity for independent research, individual projects under the direction of member of departmental faculty. One or two semesters. Prerequisite: Permission of department chair and faculty member who will direct the research.
The Technical and Liberal Studies degree is designed to supplement eligible professional and technical training programs with a core of liberal arts courses that lead to a baccalaureate degree. Canisius College believes that the values inherent in the liberal arts should be extended to those individuals whose formal learning has included training or associate's degrees in allied health and other technology programs.

This degree program includes up to 60 credit hours of academic work accepted by the college for professional or technical training programs that are offered by community colleges, government agencies, or corporate and business training units. The remainder of the program is composed of liberal arts courses and free electives. The free electives may be used to concentrate in a particular area of study.

The college assesses any professional or training program and grants an appropriate award of credit. Individuals who have completed such a program may apply to the associate dean for adult academic services. These individuals must meet the general admission requirements and submit official verification from the supervisor or registrar of the professional or technical training program that the program's requirements have been completed satisfactorily. In general, only those programs with state or national certification or licensure are accepted as part of the Technical and Liberal Studies major. Each applicant whose training program is accepted toward the degree will be given a statement summarizing the degree requirements that must be completed. Students in this major will usually complete at least 60 credit hours at Canisius. Students who have had additional coursework from four-year colleges will have these credits evaluated on an individual basis.
Contemporary American society is an urban society. The future American society, with all its problems and prospects, will also be urban in nature. The Urban Studies program is designed to prepare students for professional work in urban and public administrative fields, and to give students who enter other fields a broad understanding of the urban context in which they will live their lives.

The program concentrates on issues that are very close to our experience — economic growth and decline, public education, health, housing, land-use planning, poverty, racial and ethnic relations, transportation, crime, community development and others. Since no one approach to understanding and resolving such complex problems is sufficient, the Urban Studies program acquaints students with a variety of approaches to, and tools for, analyzing the interrelationships of the 20th century urban milieu. As half of a dual major, the program allows for a necessary specialized grounding in a traditional discipline, while providing a planned, interdisciplinary program in place of free electives. The student must major in one of the traditional disciplines such as Criminal Justice, Economics, Political Science, History, or Sociology/Anthropology, and then use free electives in a coordinated, interdisciplinary program comprising a major in Urban Studies.

The program is organized to permit the student a choice between Option I (Liberal Arts) and Option II (Urban Public Management). Option I provides the student with an opportunity to examine the urban phenomena from a multiplicity of different perspectives and disciplines. Option II offers a specialized series of courses that are vital to a promising public administrator.

The Urban Studies program offers a solid preparation for graduate programs in public administration, community development and planning, social work, public policy, criminal justice and urban affairs. It is also a recommended choice for pre-law students, and for those aspiring to careers in journalism, communications, teaching, government service, social work, law enforcement, community organization and land-use planning, as well as those industries that are increasingly conscious of the influence of urban society upon them and their impact on urban society.

Extensive internship and professional research experiences are an integral component of the Urban Studies program. Such activities are a vital aspect of preparation for graduate school and/or a professional career. Also, an intensive study of computer programming as applicable to the social sciences is provided.

**Admission**

Any student in good standing may begin the Urban Studies program. However, satisfactory performance in basic Urban Studies courses is required for admission to the Internship and Independent Study. Also, students must maintain at least a “C” average in all coursework to remain in the program. The first course for the Urban Studies major will normally be URS 200 - Urban Plunge.

(NOTE: Students in those few majors that require thirteen or more courses for their majors may find difficulty fitting the Urban Studies program into their schedules.)

**Urban Studies Curriculum**

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. **Area Studies**: Two courses from each of these areas: I, III, IV, V, VI, VII, VIII 1 (12-14 courses) (36-42)
3. **Major course requirements**: (24-21 courses)
   a. **Urban Studies requirements**:
      - URS 200 Urban Plunge (1)
      - PSC 103 Constitutional Foundations of American Government (3)
   or
      - PSC 104 American Political Process
      - ECO 102 Principles of Microeconomics (3)
   or
      - URS 237 State and Local Politics (3)
      - URS 334 Public Administration (3)
   or
      - URS 336 Urban Government and Politics (3)
      - URS 337 Urban Portraits: American Urban History (3)
   or
      - URS 311 Regional Economics and GIS (3)
   or
      - URS 312 Spatial Economics and GIS
   or
      - ECO 411 State and Local Finance
   Urban Studies Electives: three courses to be chosen from one of the following two options: (9)

   **Option 1 (Liberal Arts)**: URS 109, URS 215, URS 311, URS 312, URS 322, URS 350, URS 378, URS 381, URS 382, URS 445, URS 498, URS 499, ECO 101, ECO 411, HIS 381, PSC 103, PSC 104, PSC 327, RST 225

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1. Area II is automatically fulfilled because this program is in the social sciences.
Urban Studies Curriculum (continued)

Option 2 (Urban Public Management): URS 201, URS 215, URS 311, URS 312, URS 350, URS 498*, URS 499, ECO 101, ECO 411, ACC 201, COM 312, MIS 130, PSC 103, PSC 104

Note: Additional courses may be substituted with permission of the Urban Studies director. Not more than two elective courses may be double counted with the first major electives.

b. Requirements of second major (30-39)

4. Electives (0-1 course) (0-3)

TOTAL (40 courses) (121)

Recommended Schedule
Since the specific arrangement of courses depends on the student’s first major, the recommended course of study outlined below is very general. Each student in the program is required to arrange a specific schedule in consultation with a program advisor.

FALL
Freshman Year
ENG 101 3
ENG 102 3
ECO 102 3
RST 101 3
PSC 103 or PSC 104 3
Course in second major 3
AS 3
Total 15

Sophomore Year
PHI 101 3
Course in second major 3
AS 3
AS 3
Total 15

Junior Year
URS 311, URS 312 or ECO 411 3
URS 334 3
Course in second major 3
Course in second major 3
AS 3
Total 15

Senior Year
Urban Studies elective 3
Urban Studies elective 3
Course in second major 3
AS 3
Total 15

URS 336 3
Urban Studies elective 3
Course in second major 3
Course in second major 3
AS 3
Total 15

TOTAL 121

Note: If the second major gives the student a second excluded area besides Area II, two of the AS courses may be replaced by courses in the second major or by electives.

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URS 109 (FAH 109) History of Architecture 3
See FAH 109.

URS 200 Urban Plunge 1
48-hour immersion into the inner city, observing and working with city, church, and community organizations that strive to meet the needs of the poor.

URS 201 Planning for Urban Revitalization 3
Introduction to planning and policy-making with emphasis on neighborhoods, housing, and economic development.

URS 215 (PSC 215) National Issues and Public Policy 3
See PSC 215.

URS 237 (PSC 237) State and Local Politics 3
See PSC 237.

URS 266 (FAH 266) Modern Architecture 3
See FAH 266.

URS 311 (ECO 311) Regional Economics and GIS 3
See ECO 311.

URS 312 (ECO 312) Spatial Economics and GIS 3
See ECO 312.

URS 334 (PSC 334) Public Administration 3
See PSC 334.

URS 336 (PSC 336) Urban Government and Politics 3
See PSC 336.

URS 350 (PSC 217, SOC 342) Methods for Urban Analysis 3
See PSC 217.

URS 373 (HIS 373) Urban Portraits: American Urban History 3
See HIS 373.

URS 378 (HIS 378) History of American Railroads 3
See HIS 378.

URS 381 (HIS 381) History of Buffalo 3
See HIS 381.

URS 382 (HIS 382) New York State History 3
See HIS 382.

URS 390 (HIS 396) Politics and Society in American Film 3
See HIS 396.

URS 498 Urban Internship 1-9
Participant observation and evaluation of an urban program or agency. Students devote 10 hours per week to significant activities related to their skills and interests. Prerequisite: Placement by Urban Studies Director.

URS 499 Independent Study 1-9
Research and/or directed reading under direction of faculty members associated with Urban Studies Program. Prerequisite: Permission of Urban Studies Director.

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* URS 498 (Urban Internship) may be taken for an additional nine credits but will be counted as only one of the required electives.
Antone F. Alber, Dean; James S. Valone, Associate Dean; Laura A. McEwen, Director, Graduate Business Programs; Maureen Millane Rusk, Associate Dean/External Business Programs.

The Richard J. Wehle School of Business offers curricula leading to undergraduate and graduate degrees through the departments described below.

The undergraduate programs includes the areas of accounting, accounting information systems, economics, entrepreneurship, finance, information systems, international business, management and marketing. In addition, dual majors are available in these areas or in combination with other majors outside the Wehle School of Business.

The graduate programs lead to the degrees of master of business administration and master of business administration in professional accounting. They provide the graduate student with a sound general preparation for business decision-making and leadership. They are described in the Graduate Catalog.

The School of Business also offers a 150-hour program leading to undergraduate and graduate degrees in accounting, plus dual degree programs for students in any undergraduate major leading to one of the two graduate degrees: MBA or MBAPA.

The School of Business also includes a Center for Professional Development, which provides numerous development programs for the Western New York community at large. There is also a Women's Business Center that assists women who are interested starting a business or growing an existing enterprise.

Our mission is to develop managers and leaders with the skills, knowledge and perspectives necessary to excel in the competitive global marketplace and behave as ethical and socially responsible citizens educated in the Jesuit tradition.

The AACSB International (The Association to Advance Collegiate Schools of Business) accredits the MBA program and all the undergraduate programs in business. Accreditation establishes standards for collegiate schools of business in order to promote high levels of education quality. AACSB International accredits over 900 schools around the world.

Canisius College has a chapter of Beta Gamma Sigma, a national honor society recognizing outstanding scholastic achievement by students in business administration. Juniors ranking in the top seven percent of their class, seniors in the upper 10 percent, and graduate students who graduate in the top 20 percent are eligible for membership.

**Business Minor**

The Business minor is available to provide an introduction to business to those non-business students who may want to seek employment in the area of business after graduation. It consists of six required courses and one elective selected from several advanced business courses. For additional information, please see Dr. James Valone, associate dean of business.

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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<td>3</td>
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<tr>
<td>ECO 101</td>
<td>Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 255</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>FIN 201</td>
<td>Introduction to Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGT 101</td>
<td>Management of Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Business elective: one course (ECO 102, 256; FIN 311; MGT 325, 360, 364, 370; MKT 320, 351, 352)</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>(7 courses)</td>
<td>(21)</td>
</tr>
</tbody>
</table>
The Department of Accounting seeks to prepare graduates with the skills that are necessary for success in the profession of accounting. Accounting professionals are expected to be competent in accounting skills and well rounded in the various disciplines of business. They should also possess excellent communication and interpersonal skills. The program emphasizes the role of accounting as a vital financial information system in all organizations. An accounting background is an outstanding background for any aspect of business. Many of our graduates have also gone on to graduate school in accounting and law.

The Accounting Information Systems major combines accounting and information technology to meet the technology demands of all sectors of business. An AIS major will find employment opportunities as information specialists in accounting firms, industry, government and nonprofit entities.

Accounting majors take courses in the various fields of accounting: financial accounting, cost and managerial accounting, tax accounting, auditing, accounting information systems and not-for-profit accounting. These courses are presented in a single balanced integrated concept.

Students completing the accounting program find positions in public accounting, industry, the financial sector, government and non-profit entities. The positions held by accounting graduates include staff accountants, managers and partners in accounting firms; comptrollers, budget directors, internal auditors and chief financial officers in industry; financial analysts, loan officers, vice presidents and presidents of banks; IRS and FBI agents, CIA officers and tax administrators in the government.

The accounting curriculum is registered with the New York State Education Department and qualifies graduates to sit for the C.P.A. Examination. To become a licensed C.P.A., an accounting graduate should also meet the experience requirement of the State of New York. Relevant experience of two years is required for holders of undergraduate degrees and one year is required for holders of the M.B.A. in accounting degree. Students desiring to sit for the exam in other states should check with those states for their specific requirements. Detailed information on New York State certification may be obtained by writing to:

- Public Accountancy Processing Unit
- New York State Education Department
- Division of Professional Licensing Services
- Cultural Education Center
- Albany, NY 12230

Graduates of the program may also seek other certifications, such as the C.M.A. (Certified Management Accountant) and the C.I.A. (Certified Internal Auditor) designations.

Experience Program: The Department of Accounting, with the Council on Accountancy, helps accounting majors who have completed their junior year to find employment during the summer months in public accounting firms, industrial firms, financial institutions and the government sector. This program is intended to provide eligible students with an opportunity to apply their academic preparation to the realities of the business world. No academic credit is granted for this program. This program is also available to students in the M.B.A. Program in Professional Accounting upon completion of their intermediate accounting courses.

Accounting Scholarships: The Department of Accounting awards scholarships to qualified Accounting majors over and above financial aid and other scholarships made available through the Financial Aid Office. These scholarships are granted on the basis of academic merit and demonstrated need with preference given to the students in their fifth year.

Degree Programs
The Department of Accounting offers five degree programs:

1. A 150 Hours Bachelors Degree in Professional Accounting which can be combined with a second major or as a stand-alone degree. This program is registered with the State of New York and qualifies a graduate to sit for the C.P.A. examination. This program usually takes 5 years but with proper planning could be completed in 4 1/2 years.
2. A 150-Hours Program leading to the degree of B.S. in Business Administration (major Accounting) at the end of four years of study and an M.B.A. in Accounting (M.B.A.A.) at the end of the fifth year. This program is designed to meet the new education requirements of the State of New York for candidates who wish to sit for the C.P.A. Exam after August 1, 2009. Graduates of this program will have to complete only one year of experience (instead of two years) for licensing by the State of New York upon passing the C.P.A. examination.

3. A Four-Year Undergraduate Program leading to the degree of B.S. in Accounting Information Systems. Graduates of this program are eligible for a number of certifications such as Certified Computing Professional (C.C.P.) and Certified Information Systems Auditor (C.I.S.A.). Graduates of this program will also be able to seek a C.P.A. certification prior to August 1, 2009, by completing additional courses. After August 1, 2009, candidates sitting for the C.P.A. examination will have to complete the accounting requirements of one of the 150-Hours Programs.

4. A Four-Year Undergraduate Program leading to the degree of B.S. in Business Administration (major Accounting). Graduates of this program are generally not eligible to sit for the CPA exam. Any student who wishes to sit for the exam prior to August 1, 2009 — the date new education requirements to sit for the C.P.A. examination take effect in the State of New York — should consult with the departmental chair about a program of study to make the student eligible. Thereafter, students will not be able to take the examination under any circumstances.

5. An M.B.A. in Professional Accounting to holders of undergraduate or graduate degrees in fields other than accounting. Graduates of this program will have to complete two years of experience for licensing by the State of New York upon passing the C.P.A. examination. This program is described in the Graduate Catalog.

The curriculum requirements of the Undergraduate Programs in Accounting, the Undergraduate Program in Accounting Information Systems, and the B.A./M.B.A.A. Program are summarized in the table below.

**Flexibility:** The accounting curriculum is designed to allow maximum flexibility and exposure before students must decide on the appropriate accounting program to pursue. A student does not have to make a decision as to which accounting program to pursue until the junior year. In order to provide flexibility in making the decision, all undergraduate accounting majors follow the same curriculum in the first five semesters of study. Students choosing to major in Accounting Information Systems start taking a different course of study in the second semester of their junior year, while students in the other programs will start taking different courses of study in the senior year. The B.S./M.B.A.A. students will start taking M.B.A. courses in their senior year.

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### Undergraduate Program Admission

Admission to the undergraduate accounting programs is predicated upon admission to the Richard J. Wehle School of Business. The maintenance of an overall G.P.A. of 2.00 at the end of the sophomore year is required for enrollment in the junior year. Transfer students are required to have achieved an overall G.P.A. of 2.00 at all previous institutions attended.

### Graduate Program Admission

Students who choose to pursue the B.A./M.B.A.A. program leading to an M.B.A. in accounting should apply for admission to the M.B.A. program in their junior year.

Admission to the M.B.A. program is based on the following criteria:

1. a minimum cumulative average of 2.75 in all accounting courses taken at Canisius, including all junior accounting courses;
2. a minimum cumulative overall average of 3.0 by the end of the junior year;
3. a minimum score of 500 on the GMAT. Applicants should plan to take the GMAT at the earliest opportunity during their junior year.

For additional information, refer to the Graduate Catalog or contact the director of Graduate Accounting programs.

### Common Business and Liberal Arts Courses

1. ENG 101, ENG 102, PHI 101, RST 101 (12)
2. Area Studies: (9 courses)
   - CSC 106 (2)
   - ZAP 300 (4)
   - PHI 340 or 344
   - ENG 389 (3)
   - One course from: AS I (3)
   - AS IV (6)
   - AS VI (6)
   - AS VIII (6)
   - Social Science Elective (3)

3. Major course requirements:
   a. Common body of business knowledge for accounting:
      - QNT 101 Quantitative Methods for Business (3)
      - and
      - MAT 106 Calculus for the Non-Sciences (3)
      or
      - MAT 111 Calculus I (4)
      or
      - MAT 115 Calculus for Business I (4)

   b. Principles of Accounting:
      - ACC 211 Principles of Accounting I (3)
      - ACC 212 Principles of Accounting II (3)
      - ECO 101 Principles of Macroeconomics (3)
      - ECO 102 Principles of Microeconomics (3)

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1 Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program. One Area V course is fulfilled by the required course in philosophy.
150 Hours - B.S. in Professional Accounting
Course Requirements: In addition to the common liberal arts and business courses, students in this program will take:
ACC 301-302 Intermediate Accounting I and II (6)
ACC 303 Cost Accounting (3)
ACC 415 Basic Taxation (3)
ACC 421 Advanced Accounting (3)
ACC 451 Accounting Theory and Research (3)
ACC 425 Auditing (3)
ACC 426 Computer Auditing (3)
ACC Electives
Recommended — Not for Profit and Advanced Tax (6)
LA W 371 Business and Commercial Law (3)
LA W 372 Business Organizations and Commercial Paper (3)
Business Elective (3)
Electives — Free Elective (21)

150 Hours - B.S./M.B.A.A.
Course Requirements: In addition to the common liberal arts and business courses, students in this program will take:
ACC 301-302 Intermediate Accounting I and II (6)
ACC 303 Cost Accounting (3)
LA W 371 Business and Commercial Law (3)
LA W 372 Business Organizations and Commercial Paper (3)
Graduate Portion —
MBA 502 Organizational Behavior (3)
MBA 507 Operations (3)
MBA 508 Corporate Finance (3)
MBA 620/621 Finance Elective (3)
MBA 630 Marketing (3)
MBA 641 Human Resources (3)
MBA 690 Strategic Management (3)
MBA 672 Advanced Commercial Law (3)
MBA 715 Basic Taxation (3)
MBA 716 Advanced Tax (3)
MBA 721 Advanced Financial Reporting (3)
MBA 725 Auditing Theory and Practice (3)
MBA 726 Advanced Auditing (3)
MBA 729 Not for Profit Accounting (3)
MBA 751 Accounting Theory and Research (3)
MBA Elective (3)
NOTE: Students do not take MGT 325 or 446

Typical Schedule

FALL SPRING

Freshman Year
ENG 101 3 ENG 102 3
QNT 101 or MAT 111 or MAT 115 3 or 4
QNT 101 or MAT 111 or MAT 115 3 or 4
MAT 106 or Elective 3
MAT 106 or Elective 3
ECO 101 3 MGT 101 3
CSC 106 2 ECO 102 3
AS VIII 3 AS VIII 3
Total 15 or 16 Total 15

Sophomore Year
RST 101 3 PHI 101 3
ACC 211 3 ACC 212 3
AS IV 3 AS IV 3
ECO 255 3 ECO 256 3
AS I 3 FIN 201 3
Total 15 Total 15

Junior Year
ACC 301 3 ACC 302 3
ACC 303 3 MKT 201 3
ISB307/ACC307 3 ELECTIVE 3
PHI 340 or 344 3 ZAP 300 4
AS VI 3 ENG 389 3
Total 15 Total 16

Senior Year
ACC 421 3 ACC 425 3
MGT 325 3 Social Science elective 3
ACC 451 3 Elective 3
Business Elective 3 Elective 3
AS VI 3 MGT 446 3
Total 15 Total 15

Fifth Year
ACC 415 3 Law 372 3
Law 371 3 ACC Elective 3

Typical Schedule (continued)

ACC 426 3 ACC Elective 3
Elective 3 Elective 3
Elective 3 Elective 3
Total 15 Total 15

Requirements for Graduation: To qualify for graduation with a B.S. degree in business administration with a major in Accounting, a candidate must complete all the graduation requirements outlined in this catalog and must have a cumulative average of 2.0 for all of the accounting and business law courses taken at Canisius College.
Typical Schedule (continued)

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<tr>
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<td>ACC 303</td>
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<td>AS I</td>
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<td>ACC 307</td>
<td>3</td>
<td>Social Science elective</td>
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<tr>
<td>PHI 340 or 344</td>
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<td>ZAP 300</td>
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<tr>
<td>AS VI</td>
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<td>ENG 389</td>
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Senior Year

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<tr>
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Fifth Year

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<td>MBA 508</td>
<td>3</td>
<td>MBA 729</td>
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<td>MBA 672</td>
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<td>MBA 641</td>
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<td>MBA 630</td>
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<td>MBA elective</td>
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<td>MBA 726</td>
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<td>MBA Finance elective</td>
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Junior Year

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<td>ISB 307</td>
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<td>MKT 201</td>
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<tr>
<td>PHI 340 or 344</td>
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<td>ENG 389 (AS III)</td>
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<td>AS VI</td>
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<td>ZAP 300</td>
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Senior Year

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<tr>
<td>ACC 426</td>
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<td>MGT 325</td>
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<td>MGT 370</td>
<td>3</td>
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<tr>
<td>ACC 340</td>
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Total

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Requirements for Graduation: Students in the 150-Hour Program will graduate with a B.S. degree in business administration (major Accounting) at the end of their senior year.

To graduate with a degree of M.B.A. in Accounting, a minimum G.P.A. of 3.0 (scale of 4.0) is required in all graduate courses taken.

120 Hours - B.S. in Accounting Information Systems

Course Requirements: In addition to the common liberal arts and business courses, students in this program will take:

- ACC 301 Intermediate Accounting I (3)
- ACC 303 Cost Accounting (3)
- ACC/LAW Accounting or Law elective (3)
- ACC 331 E-Business (3)
- ACC 340 Database Management (3)
- ACC 426 Information Security, Control and Auditing (3)
- ACC 452 Enterprise Systems (3)
- Elective: two courses plus one course for those who take MAT 111 or MAT 115 instead of QNT 101 and MAT 106 (6 or 9)

Typical Schedule

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<tr>
<td>QNT 101 or MAT 111</td>
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<td>or MAT 115</td>
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<td>MAT 106 or elective</td>
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Sophomore Year

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<td>ACC 211</td>
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Junior Year

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<td>ACC 303</td>
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<td>MKT 201</td>
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<td>ISB 307/ACC307</td>
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<td>ZAP 300</td>
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<td>PHI 340 or 344</td>
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<td>ENG 389 (AS III)</td>
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Senior Year

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<tbody>
<tr>
<td>ACC 415</td>
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<td>ACC elective</td>
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</table>

120 Hours - B.S. in Accounting

Course Requirements: In addition to the common liberal arts and business courses, students in this program will take:

- ACC 301-302 Intermediate Accounting I and II (6)
- ACC 303 Cost Accounting (3)
- ACC 415 Basic Taxation (3)
- ACC Electives — Elective courses in accounting (6)
- LAW 371 Business and Commercial Law (3)
- Electives — Free Electives (3)

Requirements for Graduation: To qualify for graduation with a B.S. degree in Accounting Information Systems, a candidate must complete all the graduation requirements outlined in this catalog and must have a cumulative average of 2.0 in all accounting courses taken at Canisius College.
Typical Schedule (continued)

ACC Elective 3 MGT 325 3
Free Elective 3 MGT 446 3
LAW 371 3 LAW 372 3
AS VI 3 FIN 311, 312 or 314 3
Total 15 Total 15
TOTAL 120 or 121

Requirements for Graduation: To qualify for graduation with a B.S. degree in business administration with a major in Accounting, a candidate must complete all the graduation requirements outlined in this catalog and must have a cumulative average of 2.0 for all of the accounting and business law courses taken at Canisius College.


ACC 201 Financial Accounting
Introduction to accounting concepts for external financial reporting. Accounting theories and principles relative to asset and liability valuations, and income determination. 3

ACC 202 Managerial Accounting
Introduction to accounting concepts for internal reporting and control. Cash budgeting, decision making, capital budgeting, tax aspects of managerial planning and performance evaluation. Prerequisite: ACC 201 3

ACC 211-212 Principles of Accounting I and II
Fundamental concepts and procedures of financial and managerial accounting with emphasis on asset and liability valuations, income determination and cash flows. Accounting applications of present value concepts and budgeting. Prerequisites: ACC 211-212, junior standing and overall G.P.A. of 2.0. 6

ACC 301-302 Intermediate Accounting I and II
In-depth accounting concepts and theories pertaining to external financial reporting. Emphasis on theories surrounding asset valuations, liabilities, income determination and cash flows. Prerequisites: ACC 211-212, junior standing and overall G.P.A. of 2.0. 6

ACC 303 Cost Accounting
Preparation and analysis of data utilized by management in planning and control decisions. Inventory valuation and reporting methods. Establishment and use of standards and budgets. Prerequisites: ACC 211-212, junior standing and overall G.P.A. of 2.0. 3

ISB307/ACC 307 Management and Accounting Information Systems
Development, organization, and implementation of manual and electronic accounting and management information systems. Emphasis on flow charts and analysis, modification and improvement of existing systems. Prerequisites: Junior standing and ISB 201. 3

ACC 331 E-Business
Challenges and strategies in electronic mediated business such as: electronic business relationships; electronic payment systems; virtual supply chains; product development strategies; legal security and privacy issues. Evaluation and construction of electronic business web sites through case studies and projects. Prerequisites: ACC 307 and MKT 201 or concurrent registration. 3

ACC 340 (ISB 340) Database Management
Design and use of database management systems through host languages and user query languages. Data structures; database design; database access methods; alternate data models; database administration. Prerequisites: ACC 307 and ISB 201. 3

ACC 415 Basic Taxation
Provisions of Internal revenue Code affecting individuals and corporations; tax factors in planning and decision making; social, political and economic considerations underlying tax laws. There will be an emphasis on learning research and communications skills. Students will learn to prepare various business and accounting correspondence including, reports, memorandums, client and engagement letters. Prerequisite: ACC 212. 3

ACC 416 Advanced Tax
Internal Revenue Code provisions relating to taxation of corporations and shareholders; partnerships and partners including organization, reorganization, distribution and liquidation. Emphasis on Sub-Chapters "C," "S" and "K." Course includes learning oral and written presentations skills and techniques. Prerequisite: ACC 415. 3

ACC 421 Advanced Accounting Problems
Problem-solving techniques relative to mergers and consolidations; organization and liquidation of partnerships; introduction to fiduciary accounting for receivers, trusts and estates. Prerequisite: ACC 302. 3

ACC 425 Auditing Theory and Practice
Generally accepted auditing standards, internal control, professional liability of auditors, ethics of the profession, statistical sampling and the auditor's report. Prerequisite: ACC 302. 3

ACC 426 Information Security Controls and Auditing
Information system control design and auditing in the internet, electronic and paperless environment; management of security technology; operating and application system processing controls; prevention of unauthorized activity. Prerequisites: ACC 307 and ACC/ISB 340. 3

ACC 429 Not For Profit
Accounting and reporting issues that apply to governmental units, hospitals, schools, religious institutions and other non-profit organizations; budgetary procedures including appropriations and encumbrances. 3

ACC 451 Accounting Theory and Research
Standard setting procedures at the US and international levels, accounting concepts and principles, contemporary accounting issues, concepts of income determination, extensive database research to support or oppose accounting positions and library research culminating in a research paper or class presentation. The course will also provide instruction in business/accounting research culminating in a research paper or class presentation. Prerequisite: ACC 451. 3

ACC 452 Enterprise Systems
Measuring the value of enterprise information; enterprise resource planning (ERP) system design and functionality; international accounting systems issues; data integrity; use of financial and non-financial information for corporate decision-making. Prerequisite: Senior standing 3

ACC 499 Independent Research in Accounting
 Undertaking of a significant piece of independent research. By appointment with chairperson. 3

LAW 371 Business and Commercial Law
American legal system and substantive law of contracts, agency, bailments, sales, products liability. Uniform Commercial Code and cases. Prerequisite: ACC 212 or permission of instructor. 3

LAW 372 Business Organizations and Commercial Paper
Legal aspects of partnerships and corporations; advantages and disadvantages of each, together with commercial paper under Uniform Commercial Code; trade regulation; bankruptcy. Prerequisite: LAW 371. 3

LAW 472 Advanced Commercial Law
Foreign Corrupt Practices Act of 1977, secured transactions, accountant liability, real property, trusts and estates and insurance. Prerequisite: LAW 372. 3
Economics and Finance

Full-Time Faculty: George M. Palumbo, Chair; Donald I. Bosshardt, Nelson D. Civello (Executive Director, Golden Griffin Fund), Joseph G. Eisenhauer, Patricia A. Hutton, Larry Lichtenstein, Philip Pfaff, Ronald R. Reiber, Craig Rogers, Richard A. Shick, Richard A. Wall, F. Scott Wilson, Mark P. Zaporowski.

Economics Program
The objective of the economics curriculum is to provide students with an understanding of the economic environment in which they will participate as professionals. The major in Economics requires a sequence of economics courses in which the student is expected to obtain a substantially greater understanding of the economic environment. The Business Economics major program in the Richard J. Wehle School of Business requires, in addition to the major courses, a business core curriculum that provides the student with a common body of business knowledge. It is anticipated that either Economics major will gain sufficient training in methods of economic analysis to be able to help solve the numerous economic problems of society.

Many economics graduates find rewarding and challenging employment in government and industry — positions where their specialized training is put to the test and found valuable. Other students choose to deepen their knowledge of economics by attending graduate school. Still others find professional studies in business, law and health sciences more rewarding because of their economics training.

Business Economics (B.S.) Curriculum

ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)

Area Studies: Two courses from each of these areas:
I, III, IV, V, VI, VII
(12 courses)

Major course requirements: (21 or 20 courses)

a. Common body of business knowledge:
QNT 101 Quantitative Methods for Business (3) and
MAT 106 Calculus for the Non-Sciences (3)
or
MAT 115 Calculus for Business I (4)
ACC 201 Financial Accounting (3)
ACC 202 Managerial Accounting (3)
ECO 101 Principles of Macroeconomics (3)
ECO 102 Principles of Microeconomics (3)
ECO 255 Business Statistics I (3)
ECO 256 Business Statistics II (3)
FIN 201 Introduction to Finance (3)
ISB 101 Management Technology (3)
MGT 101 Introduction to Management (3)
MGT 325 Operations Analysis for Business (3)
MGT 370 Managerial Environment (3)
MGT 446 Managerial Policy/Strategy (3)
MKT 201 Principles of Marketing (3)
b. Economics major:
ECO 205 Intermediate Microeconomic Analysis (3)
ECO 206 Intermediate Macroeconomic Analysis (3)
Economics electives [at the 300 or 400 level] (4 courses) (12)
Electives (3 or 4 courses) (9 or 12)
TOTAL (40 courses) (120-121)

Recommended Schedule

FALL SPRING

Freshman Year
ENG 101 3 ENG 102 3
QNT 101 or MAT 111
or MAT 115 3 or 4
ECO 101 3
ISB 101 3
AS VIII 3
Total 15 or 16
Total 15

Sophomore Year
RST 101 3 PHI 101 3
ECO 205 3 ECO 206 3
MKT 201 3 FIN 201 3
ACC 201 3 ACC 202 3
ECO 255 3 ECO 256 3
Total 15 Total 15

Junior Year
AS IV 3 AS IV 3
MGT 325 3 MGT 370 3
Economics elective 3 Economics elective 3
AS III 3 AS V 3
AS I 3 AS I 3
Total 15 Total 15

Senior Year
AS III 3 MGT 446 3
Economics elective 3 Economics elective 3
AS VI 3 AS VI 3
AS V 3 Elective 3
Elective 3 Elective 3
Total 15 Total 15

TOTAL 120-121

1 Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program.
2 MAT 115 is recommended. Additional mathematics is recommended if the student is preparing for a graduate program in economics. The student should consult a departmental advisor.
3 Honors section recommended.
ECO 312 (URS 312) Spatial Economics and GIS

Information on market forces and Geographics Information System tools. Focuses on the forces that have led to urban concentrations and the process of suburbanization.

ECO 330 Money, Banking and the Economy

The connection between financial markets, the economy and the Federal Reserve will be explored. This course will examine the nature of financial markets, the determination of interest rates, banking, money and monetary policy. Emphasis will be placed on the impact of monetary policy on the macro economy.

ECO 333 Economics of Public Issues

This course uses economic principles to analyze an array of public policy issues, providing insights into public policy, the effects of policy on the behavior of consumers and producers, the costs and benefits of specific policies and the distribution of these costs and benefits. Current policy debates, such as income inequality and poverty, pollution and environment issues, health care, international trade and education are analyzed.

Prerequisites: ECO 101-102

ECO 360 International Trade

Theory and practice of international trade, finance and development. Determinants of economic relations among nations. Prerequisites: ECO 101-102.

ECO 361 International Economics and Organizations

This course is intended to be a survey of international economics covering three primary themes: international trade theory, international business and international institutions. Prerequisites: ECO 101-102.

ECO 401 (PSC 324) Public Finance

A microeconomic analysis of the role of the public sector in resource allocation. Topics include: the theory of market failures, alternative corrective measures for market failures, efficiency/equity analysis of taxes and public expenditure programs. Prerequisite: ECO 102. Fall

ECO 411 State and Local Finance

Municipal credit risk and municipal bond analysis of revenue sources for state and local governments. Public/private sector interaction in urban areas; city/suburban fiscal disparity and competition; state/local government structure; intergovernmental relations. Prerequisites: ECO 101-102, ECO 255-256 or equivalent. Spring

ECO 455 Econometrics

Estimation and analysis of linear and non-linear regression models using statistical inferences. Topics include: multicollinearity, heteroskedasticity, serial correlation, forecasting, dummy variables and simultaneous equations. Analysis of actual data sets and use of statistical software. Prerequisites: ECO 205, 206, 255-256.

ECO 497 Internship

May be used for free elective credit only. Pass/Fail only. Prerequisite: Consent of department chair.

ECO 499 Independent Research

Prerequisite: Consent of department chair.

Economics majors may also obtain a concentration in Finance by using economics electives to take three to five of the following courses: FIN 301, FIN 312, FIN 311, FIN 314, FIN 330, FIN 410, FIN 411, FIN 455, FIN 460. This specialization is appropriate for students who wish to make a career in banking or finance. These students should also use free electives to acquire some training in accounting.

The Economics-Mathematics dual major is strongly recommended for the student who plans a career in the academic world in either finance or economics. Up to three mathematics courses beyond MAT 111 can be used as economics electives.
Finance Program
The analytical tools and problem-solving skills fostered in the Finance program will prove useful to any student who wishes to pursue a career in corporate management, investments, banking, real estate, insurance or small business. The program provides a concentration designed to help the student prepare for exams for licenses as Chartered Financial Analysts (CFA), Certified Financial Planners (CFP), and Insurance Brokers.

Finance concentration is also available through the Basic Economics. Interested students should also contact the department chair.

Finance Curriculum
1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, III, IV, V, VI, VIII* (12 courses) (36)
3. Major course requirements: (22 or 21 courses)
   a. Common body of business knowledge:
      QNT 101 Quantitative Methods for Business and MAT 106 Calculus for the Non-Sciences or MAT 115 Calculus for Business I (3)
      ACC 201 Financial Accounting (3)
      ACC 202 Managerial Accounting (3)
      ECO 101 Principles of Macroeconomics (3)
      ECO 102 Principles of Microeconomics (3)
      ECO 255 Business Statistics I (3)
      ECO 256 Business Statistics II (3)
      FIN 201 Introduction to Finance (3)
      ISB 101 Management Technology (3)
      MGT 101 Introduction to Management (3)
      MGT 325 Operations Analysis for Business (3)
      MGT 370 Introduction to Management (3)
      MGT 446 Managerial Policy/Strategy (3)
      MKT 201 Principles of Marketing (3)
   b. Finance major:
      FIN 312 Investments (3)
      FIN 311 Corporate Finance (3)
      FIN 314 Portfolio Management (3)
   c. Finance electives: four courses to be selected from 300 or 400-level finance courses. FIN 455 is strongly recommended. A maximum of two of the following four accounting courses (with a minimum grade of C or better in each) may be substituted for finance electives: ACC 301, 302, 303, 415* (12)
   4. Electives (2 or 3 courses) (6 or 9)
   TOTAL (40 courses) (120-121)

Recommended Schedule

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<td>ENG 101</td>
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<td>or MAT 115</td>
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<td><strong>120-121</strong></td>
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FIN 100 The Stock Market 3
Stocks and bonds. Municipals and mutual funds. Brokers, analysts and investment counselors. Exchanges, regulations and strategy. Free elective only; for Arts and Sciences majors.

FIN 201 Introduction to Finance 3
An introduction to financial analysis, markets, institutions and instruments. Topics covered include financial intermediation, interest rate determination, valuation, diversification and financial management and agency issues. Prerequisites: ECO 101-102, ECO 255 (or concurrent registration).

FIN 311 Corporate Finance 3
The examination of the procedures and objectives of capital budgeting, the financing of the firm by means of debt and equity and short-term and long-term financial management. Prerequisite: FIN 201.

FIN 312 Investments 3
This course introduces the student to the construction, management, and performance evaluation of investment portfolios. Primary topics include portfolio models, equilibrium in financial markets, market efficiency and the application of these concepts to the investment industry. Prerequisite: FIN 201.

FIN 314 Portfolio Management 3
An introduction to modern portfolio theory and management. The strategies underlying portfolio construction and evaluation will be examined. The implications of market efficiency on portfolio management will also be considered. Prerequisites: FIN 201, ECO 256.

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*A Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program.

*A strong accounting background is desired by many corporations seeking job candidates with degrees in finance. For those who desire a degree in corporate financial planning, ACC 303 is strongly recommended. ACC 415 is recommended. FIN 466 is strongly recommended because many entry-level positions in finance require experience with financial modeling using personal computers.
FIN 321 Insurance  
Prerequisite: ECO 102 and ECO 255.

FIN 401 Public Finance  
3  
See ECO 401.

FIN 410 Introduction to Commercial Banking  
3  
Commercial bank operating procedures, asset and liability management, deposit acquisition, commercial and personal loan functions; commercial bank capital structure, impact on financial system. Prerequisite: FIN 301.

FIN 411 State and Local Finance  
3  
See ECO 411.

FIN 412 Equity Analysis  
3  
The analysis and interpretation of financial information and accounting statements in order to assess security risk and return, credit worthiness, financing needs and the valuation of the firm. Prerequisites: Fin 201, Fin 312.

FIN 420 Financial Institutions and Markets  
3  
Examines the changing world of financial services and the role that financial intermediaries and financial markets are playing in a rapidly consolidating industry with new benchmarks and success factors. Universal banking as the new model will be analyzed. Finally, the changing nature of careers in the “New Industry” will be discussed from both positive and negative points of view. Prerequisite: FIN 201.

FIN 423 Fixed Income Securities  
3  
This course discusses the various types of fixed income securities and the markets in which they are traded. Emphasis is placed on contact evaluation, extracting term/risk structure information from pricing, evaluating, investment opportunities and (interest rate) risk management.

FIN 425 Advanced Corporate Finance  
3  
This course provides a more in-depth treatment of corporate financial management. Topics from the introductory course (FIN 311) are developed in greater detail with emphasis on the underlying theories and more extensive applications to financial decision making. Additional topics beyond the introductory level are presented and discussed. The class relies primarily on lectures, problems and case discussions.

FIN 455 Computers and Financial Planning  
3  
Computer-based financial modeling for the financial decision maker. Application of financial spreadsheets.  
Prerequisite: FIN 201.

FIN 460 International Finance  
3  
Basic understanding, with illustrations, of how to apply elements of international finance to managerial policies and decision-making. Exchange rates and exchange risk. Prerequisite: ECO 101, 102, FIN 201.

FIN 480 Options  
3  
Introduction to options and other derivative securities such as warrants and convertibles. Emphasis on their valuation and use in hedging. Prerequisites: FIN 312, FIN 313.

FIN 485 - FIN 486 Golden Griffin Fund  
6  
Students will manage this fund, which is a small cap regional growth and value equity fund, that manages against the Russell 2000 as a benchmark. The fund will raise real dollars and is expected to provide real returns to its investors. Students will have professional mentors and report to a professional investment committee. Student fund managers will receive hands-on experience in all aspects of fund management. Prerequisites and concurrent courses: The GGF is part of a 24-credit program: 6 for running the Fund and taking a current issues class that involves a 12-month time commitment; and 18 for tool/core classes in corporate financial reporting; FIN 312, FIN 420, FIN 311, FIN 314, FIN 480.

FIN 497 Internship  
3  

FIN 499 Independent Research  
3  
Prerequisite: Consent of department chair.
Traditional business programs rarely address the range of problems associated with starting a new business or running a small-growth company. This Entrepreneurship major offers an integrated curriculum to fill this need.

The Entrepreneurship major is designed to be career oriented, consisting of courses built upon the business core, but reflecting the goal of providing a course of study tailored to the needs of entrepreneurs.

Many students who wish to become entrepreneurs find that spending a few years working with a company is good preparation and experience for their own ventures to come. We strongly recommend that students interested in the Entrepreneurship major combine it with another major within the college. Dual majors with either management or marketing are the most common, but majors or minors in the sciences or technology fields can be very promising.

Entrepreneurship Curriculum

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: two courses from each of these areas: I, III, IV, V, VI, VIII 1 (12 courses)
3. Major course requirements (23 or 22 courses)
   a. Common body of business knowledge:
      QNT 101 Quantitative Methods for Business (3)
      or
      MAT 106 Calculus for the Non-Sciences (3)
      or
      MAT 111 Calculus I (4)
      or
      MAT 115 Calculus for Business I (4)
   and
   Free Elective
   ACC 201 Financial Accounting (3)
   ACC 202 Managerial Accounting (3)
   ECO 101 Principles of Macroeconomics (3)
   ECO 102 Principles of Microeconomics (3)
   ECO 255 Business Statistics I (3)
   ECO 256 Business Statistics II (3)
   FIN 201 Introduction to Finance (3)
   MGT 101 Introduction to Management (3)
   ISB 101 Management Technology (3)
   MKT 325 Operations Analysis for Business (3)
   MKT 370 Managerial Environment (3)
   MKT 201 Principles of Marketing (3)

   b. Entrepreneurship Major:
      MGT 360 Organizational Behavior (3)
      MGT 364 Human Resources (3)
      MKT 320 Consumer Behavior (3)
      MKT 331 Market Research (3)
      MKT 400 Cases in Marketing (3)
      ENT 410 Analysis of Entrepreneurial Ventures (3)
      Entrepreneurship and Small Business Planning (3)
      Entrepreneurship electives (2 courses) (6)
      Electives (1 or 2 courses) (3-6)
   TOTAL (40 courses) (120-121)

Recommended Schedule

FALL

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>Freshman Year</td>
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<tr>
<td>ENG 101</td>
<td>FALL</td>
<td>3</td>
</tr>
<tr>
<td>QNT 101 or MAT 111</td>
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<tr>
<td>ECO 101 Macro</td>
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<tr>
<td>ISB 101</td>
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<tr>
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<th>Credits</th>
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<tr>
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<td>ACC 201</td>
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<td>RST 101</td>
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<tr>
<td>MGT 360</td>
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<td>AS I Science</td>
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<td>MGT 325</td>
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<td>AS III Art &amp; Lit</td>
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<td>AS V Philosophy</td>
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<td>Senior Year</td>
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<tr>
<td>ENT 400</td>
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<tr>
<td>ENT elective</td>
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<td>MGT 401</td>
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<td>AS I Science</td>
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<td>AS VI Religion</td>
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<table>
<thead>
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<th>Course</th>
<th>Semester</th>
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<tbody>
<tr>
<td>TOTAL</td>
<td></td>
<td>120-121</td>
</tr>
</tbody>
</table>

1 Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program.
The degree in Information Systems (IS) prepares students for the current job market that is characterized by ever increasing reliance on information technology, data networks, computer security and telecommunications. The IS curriculum provides its majors with:

- Technical and managerial skills in systems analysis, design and implementation.
- A comprehensive overview of telecommunication systems, including data and voice networks.
- The ability to design and develop interactive commercial E-Commerce Web sites.
- The knowledge to design and develop database systems, including databases for active (interactive) Internet applications.
- An understanding of the technical and legal aspects of cyber security and computer forensics, and how to defend against computer crime.

Majors in the IS program, within the School of Business Administration, also learn the functional areas of business and international commerce-accounting, marketing, management, human resources, economics and finance. Focusing on internships can help students develop expertise in the IT area of their choice.

Majors will be prepared for a variety of positions as information systems analysts, Internet programmers or website designers, and computer network analysts. They will be prepared for positions in the fast-growing area of computer security. Computer security has job growth in the private sector, public sector and government.

Information Systems Curriculum
Please visit [http://is.canisius.edu/](http://is.canisius.edu/) for updated course information.

1. ENG 101, ENG 102, RST 101, PHI 101 (4 courses) (12)
2. Area Studies1: Two courses from each of these areas: I, III, IV, V, VI, VIII (12 courses) (36)
3. Major course requirements: (23 or 22 courses)
   a. Common body of business knowledge:
      QNT 101 Quantitative Methods for Business (3)
      and
      MAT 106 Calculus for the Non-Sciences (3)
   b. Information Systems majors:
      ISB 211 Computer Programming for Business (3)
      ISB 215 Advanced Software Applications (includes Project Management) (3)
      ISB 340 Data Base Management Systems (3)
      ISB 351 Systems Analysis and Design (3)
      ISB 451 Telecommunications (3)
      ISB 455 E-Commerce and Website Design (3)
      ISB 470 Special Topics in IS: Cyber Security (3)
      ISB 480 or IS Internship Elective (3)
   c. Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program.
4. Electives (1 or 2 courses) (3 or 6)

Total (40 courses) (120-121)

Recommended Schedule

<table>
<thead>
<tr>
<th>FALL</th>
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<td>SPRING Freshman Year</td>
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<tr>
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<td>ENG 102</td>
</tr>
<tr>
<td>QNT 101 or MAT 111</td>
<td>or MAT 115</td>
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<tr>
<td>ECO 101</td>
<td>ECO 102</td>
</tr>
<tr>
<td>ISB 101</td>
<td>MGT 101</td>
</tr>
<tr>
<td>AS VIII</td>
<td>AS VIII</td>
</tr>
<tr>
<td>Total 15 or 16</td>
<td>Total 15</td>
</tr>
</tbody>
</table>

Sophomore Year

| ISB 215 | ISB 211 | 3 | 3 |
| ACC 201 | ACC 202 | 3 | 3 |
| MKT 201 | FIN 201 | 3 | 3 |
| RST 101 | PHI 101 | 3 | 3 |
| ECO 255 | ECO 256 | 3 | 3 |
| Total 15 | Total 15 | |

1 Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program.
Information Systems Minor
The IS minor consists of 4 courses, in addition to ISB 101. There are two required ISB courses; the other two ISB courses are selected by the student. For Criminal Justice, Psychology and Digital Media majors who are interested in a custom-designed IS minor that allows a specialization, please contact the department chair.

Information Systems minor, 2 required courses:
ISB 340 Database Management Systems
ISB 351 Systems Analysis and Design

Select two ISB courses from the following:
ISB 215 Advanced Software Applications
ISB 225 Computer Forensics
ISB 455 E-Commerce and Website Design
ISB 451 Telecommunications
ISB 470 Special Topics in IS: CyberSecurity
ISB 480 IS elective course


ISB 201 Management Technology
Information technologies and systems for managing the networked digital firm. Includes development of business applications using Microsoft software.

ISB 211 Computer Programming for Business
Introduction to computer programming using Visual Basic. Fundamentals of computer programming using Visual Basic. Students will learn database programming, algorithm development, data structures and user interface design, with an emphasis on business applications.

ISB 215 Advanced Software Applications
An advanced computer course that focuses on the following software and management topics: Project management using Microsoft Project; data analysis and graphics with Excel; presentation graphics; and database management with Access.

ISB 340 Database Management Systems
Design and applications of database management systems and structured query languages (SQL). Data structures, database design, database access methods, alternate data models, database administration.

ISB 351 Systems Analysis and Design
Introduction to information systems development. Topics include the systems development life cycle, analysis methods, project management techniques, tools for the management of information. Prerequisite: ISB 340.

ISB 451 Telecommunications
Data and voice networks, hardware, software and protocols. Wired and wireless communication, including RFID.

ISB 455 E-Commerce and Website Design
Fundamentals of e-commerce applications and technologies. Interactive website design and development. Prerequisite: ISB 340.

ISB 470 Special Topics in IS: Cyber Security
An introduction to cyber threats, computer crimes, vulnerabilities and legal liabilities that accrue from the widespread use of computer networks.

ISB 480 IS Elective
The forces of globalization have had a dramatic impact on the business world. There have been so many global changes in the business world that people now often say that “doing business” is really doing “international business.” The sheer volume of business that is being addressed is massive in scale. As an example, over $1 billion worth of goods and services are traded each day between the United States and Canada! It is easy to see why companies today are in great need of people who know how to move money around the world, how to find new customers or where in the world to find the best suppliers. These are the skills that you will acquire by studying within the International Business major.

**International Business Major**

The International Business major at Canisius is unique in the Western New York area because it combines the study of international business topics with those in the realms of modern language studies and international experience. The goals of the program are to help students to understand:

1. what happens in business when an international border is crossed;
2. how business changes when a language other than English is being used; and
3. how to cross an international border when doing business.

The program consists of three parts. The international business component is composed of four core courses and three electives. The core courses cover the fundamentals of international business and the international dimensions of management, marketing and finance. This concentration will provide students with a solid background in a broad number of international business topics. The electives are chosen from a long list of choices. Students have the option to cluster these electives to concentrate on a topic, such as “Global Logistics,” or a region, such as “North America.”

The language requirement within the major recognizes the fact that much of what happens in international business takes place outside of the English-speaking world and that it is always an advantage to speak the language of your customer. The program requires that students complete a modern language through the 215-216 level. Most students entering Canisius are placed directly into the 215 level if they follow through on the language that they studied in high school, meaning students can easily fulfill this component when they fulfill the college’s general language requirement. However, students are encouraged to continue their language courses beyond this level in order to take advantage of our study abroad opportunities or to accomplish a dual major.

The third component of the program is the requirement to participate in an “international experience.” We know that students who go on to work in international business will quite likely need to travel. We also know that crossing international borders can sometimes be a daunting task, both logistically and emotionally. Therefore, all of our students will have to cross an international border during their field experience. Since we sit on an international border crossing with Canada, this requirement is easily fulfilled. The most convenient option is for students to participate in a class-sponsored trip to Canada. Students also have the option to participate in short study tours sponsored by the college. These include three week international business seminars, two week European Union simulations and four week immersion programs in Mexico. The most intensive experience, of course, comes from living and studying abroad for more than just a few weeks. We therefore encourage students to participate in one of our study abroad programs during the summer or for one or two semesters during the undergraduate careers.

**Career Opportunities**

Virtually any company doing business today would benefit from having an employee who understands how business is conducted globally, has some experience with a foreign language and is a seasoned international traveler. Graduates of the program will find careers in such fields as international banking, importing and exporting, and international sales and marketing. Students can also find jobs with companies that support international transactions, such as global logistics firms and freight forwarders. In addition to private firms, many economic development agencies need people who understand international business. The program will also be a good foundation for students who want to go on to graduate school to study international business, international relations or law.

**Internships**

Students in the program are encouraged to participate in an internship. These may take place at one of the many international agencies in the area, such as the World Trade Center of Buffalo-Niagara, Buffalo World Connect or the Atlantic Corridor Development Agency, or various public and private firms with an international clientele, such as Rich Products. Students can also participate in one of our international projects combined with a study abroad program in England or Australia. Students with sufficient language proficiency can also participate in an internship in Mexico, France, Germany or Spain.
Study Abroad
All students in the major must complete an international experience. Although this can be fulfilled with a short program, students are encouraged to participate in one of the study abroad programs that the college facilitates. The programs take place at the Catholic University of Lille (France), The University of Dortmund (Germany), The University of Oviedo (Spain), The University of Michoacan (Mexico), London Metropolitan University (England), The University of the Sunshine Coast (Australia), The University of Galway (Ireland), The University of Antwerp (Belgium), Uppsala University (Sweden) and Sophia University (Japan). In all of these programs, Canisius faculty and staff are closely involved so that the credits accumulated by the student transfer back as Canisius credits. Students who participate in one of these programs through the college generally do not increase the length of their undergraduate programs.

Dual Majors
Because the International Business program is already interdisciplinary, it is very easy for students to fulfill a dual major. Students are encouraged to consider this option. The International Business major can easily be combined with one of several other business majors. Students can also form a dual major with French, German, Spanish or International Relations, especially when combined with a study abroad semester.

International Business Curriculum
1. ENG 101, ENG 102, RST 101, PHI 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, III, IV, V, VI, VIII1 (12 courses) (36)
3. Major course requirements: (23 or 22 courses)
   a. Common body of business knowledge:
      QNT 101 Quantitative Methods for Business (3)
      or
      MAT 106 Calculus for the Non-Sciences (3)
   b. International Business majors:
      IBUS 301 Fundamentals of International Business (3)
      MGT 472 Comparative Management Systems (3)
      MKT 475 International Marketing (3)
      FIN 460 International Finance (3)
   c. International Business Electives (3 courses) (9)
   d. Electives (2 or 3 courses) (6-9)
   TOTAL (40 courses) (120-121)

Recommended Schedule
FALL
Freshman Year
ENG 101 3 ENG 102 3
QNT 101 or MAT 111 3 or 4 MAT 106 or elective 3
ECO 101 3 MGT 101 3
ISB 101 3 ECO 102 3
AS VIII 3 AS VIII 3
Total 15 or 16 Total 15
Sophomore Year
PHI 201 3 RST 101 3
ACC 201 3 ACC 202 3
MKT 201 3 FIN 201 3
AS IV 3 AS IV 3
ECO 255 3 ECO 256 3
Total 15 Total 15
Junior Year
IBUS 301 3 AS III 3
AS IV 3 MGT 472 3
MGT 325 3 MGT 475 3
FIN 460 3 IBUS elective 3
AS I 3 AS VI 3
Total 15 Total 15
Senior Year
IBUS elective 3 IBUS 446 3
MKT 370 3 IBUS elective 3
AS I 3 AS V 3
AS V 3 Elective 3
AS VI 3 Elective 3
Total 15 Total 15
TOTAL 120-121

IBUS 301 Fundamentals of International Business: Study of the international dimensions of the basic functional areas of business. The course begins with a study of the comparative advantage of nations; progresses through the functional areas of accounting, finance, management and marketing; ending with the design of strategies for success in international markets.

IBUS Electives: Most IBUS electives are cross-listed through the Management Department. Examples would include:

1 Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program.
Double Major in International Business and International Relations

The director of the International Business Program has worked closely with the International Relations Program to develop a double major in the two disciplines. To complete the major in International Business, a student must take IBUS 301 (Fundamentals of International Business), FIN 460 (International Finance), MGT 472 (Comparative Management) and MKT 475 (International Marketing), plus three international business electives. In order to receive International Business major elective credit, a course must be approved by the director of the International Business Program. Of those courses offered under the auspices of the International Relations Program, the following — HIS 300 (Historical Geography), HIS 331/PSC 355 (European Union) and PSC 442 (Seminar in International Relations) — are among those that have been approved for International Business major credit.

A student pursuing a double major in International Business and International Relations must also complete the core curriculum in the School of Business consisting of: QNT 101 (Quantitative Methods for Business, MAT 106 (Calculus for the Non-Sciences) or MAT 115 (Calculus for Business), ACC 201 (Financial Accounting), ACC 202 (Managerial Accounting), ECO 101 (Macroeconomics), ECO 102 (Microeconomics), ECO 255 (Business Statistics I), ECO 256 (Business Statistics II), FIN 201 (Introduction to Finance), MGT 101 (Introduction to Management), ISB 101 (Management Technology), MGT 325 (Management Science), MGT 370 (Managerial Environment), MGT 446 (Managerial Policy) and MKT 201 (Principles of Marketing).

Recommended Schedule for a Double Major in International Business and International Relations:

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<td>ENG 102</td>
</tr>
<tr>
<td>QNT 101</td>
<td>MAT 106, MAT 111 or MAT 115</td>
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</table>

| HIS 107 or HIS 109 or HIS 131 | HIS 108 or HIS 110 or HIS 132 |

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<tr>
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**Total**: 15

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<td>MGT 325</td>
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<tr>
<td>FIN 201</td>
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| IBUS 301        |
| AS III or Language 300 level |
| AS I Natural Sciences |

**Total**: 18

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<tr>
<td>IR/IB elective-HIS 300</td>
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<tr>
<td>IR Major elective</td>
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<tr>
<td>AS I Natural Sciences</td>
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<tr>
<td>AS VI Religious Studies (IR Elective)</td>
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| AS III or Language 300 level |
| AS I Natural Sciences |

**Total**: 18

**TOTAL**: 129

Students pursuing a double major in International Business and International Relations will most likely have to take two or three additional courses to satisfy core curriculum requirements and the requirements of the two majors. The number of additional courses will depend upon the level of the student's math and language skills when entering Canisius and upon the award of AP credit.

A double major in International Business and International Relations must also fulfill the International Experience requirement.
The department has two fundamental goals. Our first goal is to provide those students interested in managerial careers with a well-rounded course of studies that combine contemporary theory and relevant application. Our second goal is to provide students in other majors with basic management courses so they can gain some background knowledge in this important area of business.

Students wishing to become Management majors should inform the registrar of their intention and attend all department advisement sessions.

Management Major
The task of the manager is to coordinate the activities of people and resources in order to accomplish organizational objectives. The Management major provides students with a balanced education to prepare them for this important organizational role. The curriculum contains basic coursework in quantitative methods, behavioral principles, and strategic management. Students are encouraged to take additional specialized courses and electives to add depth in one of four management minors: Human Resource Management, Management of Technology, Global Logistics & Supply Chain or International Management. Alternatively, they can work with an advisor in the department to tailor their electives to meet special individual interests or needs.

Management is both a process and a set of skills necessary for the success of any organization, large or small, public or private, for profit or non-profit. As a result, the Management program seeks to prepare students who can appreciate problems, analyze information and implement solutions in a variety of occupations and settings. Some examples are: office management, financial management, labor relations, personnel administration, systems and procedures, production management, materials management, quality control, marketing management, and supervision or general administration in manufacturing, finance, retail sales, transportation, food and entertainment, education, government and other service and non-profit organizations.

Management Minors
A student can add to the primary Management major by following one of the four prescribed minors. The student may choose a minor early in the junior year and notify a department advisor of this decision. A certificate of completion is awarded upon fulfillment of the requirements. A department advisor can help the student choose electives that meet individual interests or needs.

Global Logistics and Supply Chain Management Minor
Supply Chain Management addresses the integrated management of the set of value-added activities from product development, through material procurement from vendors, through manufacturing and distribution of the good to the final customer. In today’s environment, competition is no longer one company versus another, but rather, one supply chain versus another. Through the Global Supply Chain Management concentration, students learn the theoretical, integration and conceptual skills to manage this competition.

Requirements
Complete all the specified courses in the Management major including the following three required courses:
- MGT335 Management Science
- MGT336 Production/Operations Management (Management Majors) or MGT325 Operations Analysis for Business (Non-Management Majors)
- MGT440 Global Supply Chain Management or MGT478/MKT478 Global Logistics/Transportation

And two electives from the following list:
- MGT334/MKT334 Purchasing
- MGT390 New Product Development
- MGT440 or MGT478/MKT478 Global Supply Chain Management or Global Logistics/Transportation
- MGT442 Packaging
- MGT474/MKT474 Doing Business in Canada
- MGT476/MKT476 Doing Business in Mexico
- MGT479 Current Topics in Global Logistics and Supply Chain Management
- MGT496 Management Internship in Global Supply Chain Management

MGT335 and MGT336 are prerequisites for most of the elective courses and should be completed by the end of the
junior year. These two courses can be taken simultaneously. MGT325 may be substituted for MGT336.

Non-business majors must take MGT101 (Introduction to Management) and ECO255 (Business Statistics) prior to beginning the program.

**The Human Resource Management Minor**

Organizations can gain a sustained competitive advantage in the business world by promoting “high performance work practices” through strategic human resource management (HRM). There is a need for individuals who know how to acquire and maintain effective employees, develop their potential, and manage their performance. This minor is designed to provide students with basic knowledge and experience in contemporary human resource practices.

**Requirements**

Complete all the specified courses in the Management major and use the following courses as management electives:

- MGT 367 Employee and Labor Relations
- MGT 464 Current Topics in Human Resource Management
- MGT 493 Internship in Human Resource Management

Students in the HRM minor are expected to become members of the Canisius Chapter of the Society for Human Resource Management (SHRM).

**International Management Minor**

To meet the international dimension of today’s business environment, this minor enables students to acquire knowledge and competence in the practice of management on the global stage.

**Requirements**

1. Complete all specified courses in the Management major and use the following courses as management electives:
   - MGT 472 Comparative Management Systems
   - MGT 475 International Management
   - IBUS 301 Fundamentals of International Business
2. Complete one International elective: MKT 475, ISB 303, ECO 360, FIN 460, MGT 493

Students in this minor are encouraged to seriously consider taking advantage of one of the college’s study-abroad opportunities.

**Management of Technology Minor**

In a time of constant technological change, managers will be increasingly called upon to manage new products, processes and systems. In addition to providing a fundamental understanding of the field, this track helps students prepare for the six professional certification examinations of the American Production and Inventory Control Society (APICS). APICS certification should significantly improve a student’s employment prospects.

**Requirements**

Complete all the specified courses in the Management major and use any three of the following as management electives:

- MGT 434 Technology Management
- MGT 436 Quality Management
- MGT 437 Project Management
- MGT 439 Operations Planning and Control
- MGT 440 Global Supply-Chain Management
- MGT 496 Internship in Technology/Operations Management

The MGT 335-336 sequence is a prerequisite for most of these courses and should be completed by the end of the junior year. These two courses can be taken simultaneously. Students in the Management of Technology minor are expected to become student members of the Canisius Chapter of the American Production and Inventory Control Society (APICS).

Non-business majors must take MGT 101 (Introduction to Management) and ECO 225 (Business Statistics) prior to beginning the program.

**Management Curriculum**

1. ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: Two courses from each of these areas: I, III, IV, V, VI, VIII (12 courses) (36)
3. Major course requirements: (21 or 20 courses)
   a. Common body of business knowledge:
      - QNT 101 Quantitative Methods for Business (3)
      - MAT 106 Calculus for the Non-Sciences (3)
      or
      - MAT 111 Calculus I (4)
   b. Management major:
      - MGT 335 Management Science (3)
      - MGT 336 Production/Operations Management (3)
      - MGT 360 Organizational Behavior (3)

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1 Students intending to complete an internship for credit as part of a minor must consult with a department advisor for guidance and approval.
2 ECO 360 and FIN 460 may not be used as electives in this program by non-business majors.
3 Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program.
Management Curriculum (continued)
MGT 364 Human Resources Management (3)
Management electives: three courses.
Marketing courses may not be used here (9)
4. Electives (3 or 4 courses) (9 or 12)
TOTAL (40 courses) (120-121)

Recommended Schedule (Management)
FALL SPRING
Freshman Year
ENG 101 3 ENG 102 3
QNT 101 or MAT 111 3 or 4 MAT 106 or elective 3
ECO 101 3 ECO 102 3
ISB 101 3 MGT 101 3
AS VIII 3 AS VIII 3
Total 15 or 16 Total 15
Sophomore Year
PHI 101 3 RST 101 3
ACC 201 3 ACC 202 3
AS IV 3 AS IV 3
ECO 255 3 ECO 256 3
MKT 201 3 FIN 201 3
Total 15 Total 15
Junior Year
MGT 360 3 MGT 364 3
MGT 335 3 MGT 370 3
MGT 336 3 Management elective 3
AS III 3 AS III 3
AS I 3 AS VI 3
Total 15 Total 15
Senior Year
Elective 3 MGT 446 3
Management elective 3 Management elective 3
AS V 3 AS V 3
AS VI 3 Elective 3
Total 15 Total 15
TOTAL 120-121

Note: To ensure that all prerequisites are met, it is especially important that majors follow the indicated sequence for the following “quantitative” courses: QNT 101-MAT 106, ECO 255 and MGT 335-336.

Business Management Minor—
MGT 101 Introduction to Management (3)
MKT 201 Principles of Marketing (3)
MGT 325 Operations Analysis for Business (3)
MGT 370 Managerial Environment (3)
Business Management electives: two courses ( MGT 360, MGT 364, MGT 475, MKT 320, MKT 351, MKT 352, MKT 475, or other Business courses approved by department chair) (6)
TOTAL (6 courses) (18)

Other Programs
Entrepreneurship — Small Business Specialization
This program is designed for students interested in starting or owning a small business. Students choosing this specialization should complete all required courses for the B.S. in management or marketing, along with special courses in entrepreneurship and small-business management. To qualify for this specialization, students should contact the department chair.

Minor in Industrial/Organizational Psychology
This interdisciplinary program, which is open to management majors, combines management and psychology courses. See your advisor for details.

International Business Major
The department also offers a major in International Business. Complete details are listed elsewhere in the catalog under “International Business.”

Additional Information
Internships
Internships qualifying for three hours of academic credit are available to upper-division students majoring in management. These opportunities involve a work-and-study situation with faculty supervision. Many are paid. Students wanting internships for credit must meet certain departmental requirements. For further information, contact the department chair or your departmental advisor.

Career Preparation
All management majors are expected to register with the Career Center during their senior year (if not before). Registration includes preparation of a formal resume and an interview with the Career Center staff. In addition, majors are encouraged to actively utilize the office’s other career-oriented services. Students should contact the Career Center in Old Main 016.

Note: Additional or different management and marketing electives may be offered. Students should consult the department.

QNT 101 Quantitative Methods for Business 3
Basic arithmetic and algebraic skills; concepts of variables and equations; graphs and graphical analysis; introduction to the Microsoft Excel spreadsheet program. Strong business application orientation.

MGT 101 Introduction to Management 3
Organization design and administration, including traditional and modern theories. The production function, managerial functions and processes, decision-making, behavioral factors/ issues, and case analysis.

MGT 307 U.S. Business History 3
This course will provide students with an overview of business organizations in American history since the mid-19th century. Some of the major topics to be covered will be small business and entrepreneurs in American life, the rise of big business, labor and employees relation, business-government relations, marketing and advertising history, the consumer culture, and other notable changes in the business system over the period covered. Prerequisite: MGT 101

MGT 325 Operations Analysis for Business 3
Production/operations strategies and policies with respect to inventory control, capacity planning and scheduling, and quality control. Linear programming and forecasting in managerial decision-making. Prerequisites: QNT 101 and MAT 106 or MAT 115, or other acceptable mathematics courses. This is not a MGT elective.

MGT 334 (MKT 334) Purchasing 3
Introductory course in business procurement. Topics include organization role, policy & procedures, process flows, purchasing law, contract management, ethics, e-procurement, supplier relations and current best practices. Prerequisites: MGT 101, MKT 201.

MGT 335 Management Science 3
Introduction to a variety of management science tools and applications. Quantitative modeling of decision-making problems, with an emphasis on interpretation of results. Prerequisite: ECO 255.

MGT 336 Production/Operations Management 3
Special problems of management in designing and operating both manufacturing and service organizations. Facilities layout, location, planning, quality control, inventory control, productivity and operations economics. Prerequisite: MGT 335 or concurrent registration.

MGT 345 New Venture Management 3
The management skills necessary to be a successful entrepreneur, including creative decision making, time management, delegating, negotiating, communication, team building and employee empowerment.

MGT 360 Organizational Behavior 3
Organizational functioning at the individual, group, and system levels. Topics include communications, leadership and motivation, organization design and change. Course includes experiential practice of related managerial skills. Prerequisites: MGT 101, sophomore standing.

MGT 364 Human Resources Management 3
Focuses on a firm's human-resources management activities. Topics include contemporary approaches to staffing, performance evaluation, compensation and union-management relations. Formerly MGT 340. Prerequisites: MGT 101; junior standing.

MGT 367 Employee and Labor Relations 3
Understanding power relationships in the world of work. Formal relationships between management and unions representing employees. Topics include labor history, negotiating, labor-management relations including adversarial as well as labor-management collaboration and managing grievances. Some emphasis on skill development. Prerequisites: MGT 360, junior standing.

MGT 370 Managerial Environment 3
Managing interplay between business and society, including political, economic, social, legal, international, ethical environments. Role of market, law, self in control of business. Cases; issues. Prerequisite: MGT 101.

MGT 380 International Business Seminar 3
Three weeks of travel in Europe, either between fall/spring semesters or in summer. Gives exposure to international business environment and to business practices outside U.S.A. Readings; discussions; paper required after return to U.S. Prerequisite: Open to all Business majors and to others by approval. Application to Dr. Vegso.

MGT 410 (ENT 410) Entrepreneurship and Small Business Planning 3
Identifying market opportunity for a potential new venture. Student analyzes, writes, revises and presents a complete business plan for the proposed business venture. Elective.

MGT 439 Operations Planning and Control 3
Manages interplay between business and society, including political, economic, social, legal, international, ethical environments. Role of market, law, self in control of business. Cases; issues. Prerequisite: MGT 360. Elective.

MGT 437 Project Management 3
Introduction to the principles and techniques employed by project manager. Focus on entire project life cycle. Critical issues such as time, cost and performance parameters analyzed from organizational and resource management perspectives. Prerequisite: MGT 335 or MGT 325 Elective.

MGT 439 Operations Planning and Control 3
Series of topics designed to target the CPIM (Certification in Production and Inventory Management) professional certification examinations conducted by APICS. Includes just-in-time systems, master planning, and material requirements planning. Prerequisite: MGT 336.

MGT 440 Global Supply-Chain Management 3
This course examines supply chain management, operations planning, logistics and manufacturing issues and practices in a global context. Based upon course content, the student may take certification course offered by APICS in Basics of Supply Chain Management. Prerequisite: MGT 336 or MGT 325.

MGT 442 Packaging 3
Many packaging materials are available to manufacturers. This course explores the tools, strategies and tactics involved in the packaging of products within the global supply chain through various transportation methods. Prerequisite: MGT 336 or MGT 325.

MGT 446 Managerial Policy/Strategy 3
Business students' capstone course. Integration of all business disciplines into discussion of goals, strategies, policies, planning, evaluation. Cases provide decision-making experience. Prerequisite: To be taken in the last semester of the senior year.
MGT 464 Current Topics in Human Resource Management 3
Seminar on selected topics with focus on emerging practices and contemporary examples. Topics may include self-managing work teams, HR and TQM, strategic HRM, labor-management collaboration, uses of contingent workers and training for competitiveness. Prerequisites: MGT 101, MGT 364. Elective.

MGT 472 Comparative Management Systems (International) 3
International business emphasizing differences in systems. Context and traditions in different countries and regions: social, political, governmental, business, labor, ethical, cultural analysis. Different management and business practices. Managing and doing business within and across many countries. Prerequisite: MGT 101 or permission of instructor. Elective.

MGT 473 (SPA 473) Mexican Crafts and Culture 3
Meets once a week with SPA 473, in English, for discussion of crafts of Michoacan/importation and sale. Meets once a week independently, in Spanish, for study of general Mexican culture.

MGT 474 (MKT 474) Doing Business in Canada 3
This course is designed to stimulate curiosity about management practices of companies seeking market opportunities in Canada and to raise students’ consciousness about the importance of viewing international marketing/management strategies from a global perspective. Prerequisite: MGT 101 or permission of instructor.

MGT 475 International Management 3
Decision-making models to help the manager deal effectively with the global marketplace. Emphasis on situation analysis and problem solving. Prerequisite: MGT 101 or permission of instructor.

MGT 476 Doing Business in Mexico 3
This course is designed to stimulate curiosity about management practices of companies seeking market opportunities in Mexico and to raise students’ consciousness about the importance of viewing international marketing/management strategies from a global perspective. Prerequisite: MGT 101 or permission of instructor.

MGT 478 (MKT 478) Global Logistics / Transportation 3
The focus of this course is an introduction to the operation and management of the primary modes of international transportation. This will include overviews of ocean, air, truck, rail and inter-model transportation modes. Special attention will be given to service and cost factors, inter-modal methods and economies, and customs and government restrictions. Prerequisite: MGT 101 or permission of instructor.

MGT 479 Current Topics in Global Logistics and Supply Chain Management 3
Seminar on selected topics with focus on emerging practices and contemporary examples in Global Logistics and Supply Chain Management. Course may be cross-listed with courses in Information Systems & Supply Chain Management, International Accounting and Law, E-Commerce and finance courses focusing on Global Logistics & Supply Chain Management as they are developed. Prerequisite: MGT 336 or MGT 325.

MGT 496 Management Internship 3
Non-routine job experience that links academic concepts with practical experience. Requires supervision by faculty, and student demonstration of academic value through papers and reports.
marketing

Full-Time Faculty: Gregory R. Wood, Chair; Guy H. Gessner, Paul L. Sauer, David J. Snyder.

The department has two fundamental goals. Our first goal is to provide those students interested in careers in marketing with a well-rounded course of studies that include both contemporary theory and relevant marketing applications. Our second goal is to provide students in other majors with basic courses in marketing so they can gain some background knowledge in this important area of business.

Students wishing to become Marketing majors should inform the registrar of their intention and attend all department advisement sessions.

Marketing Major
Marketing is a thrilling and dynamic discipline. Every year excitement comes from new product launches, popular advertising campaigns and innovative approaches to doing business in traditional industries. Marketing is global, fast-paced, and rewarding. Marketing offers the student an opportunity for an exciting career that can be utilized around the world. Marketing positions are available in all types of industries ranging from pharmaceuticals and healthcare to high technology and telecommunications. The Marketing major is designed for students who want a balanced career that rewards creativity, while requiring business results.

Marketing positions are available in a variety of consumer, industrial, and institutional market areas, including such "non-business" fields as health care, government administration and cultural organizations. The marketing program is designed for students who want a balanced career that rewards creativity, while requiring business results.

Marketing positions are available in a variety of consumer, industrial, and institutional market areas, including such “non-business” fields as health care, government administration and cultural organizations. The marketing program is designed for students who want a balanced career that rewards creativity, while requiring business results.

Marketing Curriculum (continued)

and

MAT 106 Calculus for the Non-Sciences (3)

or

MAT 111 Calculus I (4)

or

MAT 115 Calculus for Business I (4)

ACC 201 Financial Accounting (3)

ACC 202 Managerial Accounting (3)

ECO 101 Principles of Macroeconomics (3)

ECO 102 Principles of Microeconomics (3)

ECO 255 Business Statistics I (3)

ECO 256 Business Statistics II (3)

FIN 201 Introduction to Finance (3)

ISB 101 Management Technology (3)

MGT 101 Introduction to Management (3)

MKT 320 Consumer Behavior (3)

MKT 331 Fundamentals of Marketing Research (3)

MKT 401 Cases in Marketing Management (3)

MKT 475 International Marketing (3)

c. Marketing electives: two courses.
Management courses may not be used as marketing electives. Marketing internships may qualify as one marketing elective.

4. General Electives (3 or 4 courses) (9 or 12)

TOTAL (40 courses) (120-121)

Recommended Schedule (Marketing)

FALL

Freshman Year

ENG 101 3

ENG 102 3

QNT 101 or MAT 111

or MAT 115 3 or 4

ECO 101 3

ECO 102 3

ISB 101 3

MKT 101 3

AS VIII 3

AS VIII 3

Total 15 or 16

Total 15

Sophomore Year

RST 10 3

PHI 101 3

ACC 201 3

ACC 202 3

MKT 201 3

FIN 201 3

AS IV 3

AS IV 3

ECO 255 3

ECO 256 3

Total 15

Total 15

1 Area II is automatically fulfilled because this program is in the social sciences. Area VII is fulfilled by the mathematics courses required in this program.
Recommended Schedule (Marketing) - continued

Junior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MKT 320</td>
<td>3</td>
<td>MKT 331</td>
<td>3</td>
</tr>
<tr>
<td>MKT 475</td>
<td>3</td>
<td>MKT 325</td>
<td>3</td>
</tr>
<tr>
<td>AS I</td>
<td>3</td>
<td>MGT 370</td>
<td>3</td>
</tr>
<tr>
<td>AS VI</td>
<td>3</td>
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<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Senior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing elective</td>
<td>3</td>
<td>Marketing elective</td>
<td>3</td>
</tr>
<tr>
<td>MKT 401</td>
<td>3</td>
<td>MGT 446</td>
<td>3</td>
</tr>
<tr>
<td>AS V</td>
<td>3</td>
<td>AS V</td>
<td>3</td>
</tr>
<tr>
<td>AS VI</td>
<td>3</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

TOTAL 120-121

Note: To ensure that all prerequisites are met, it is especially important that majors follow the indicated sequence for the following “quantitative” courses: QNT 101-MAT 106 (OR MAT 111 OR 115), ECO 255, and MGT 325.

Dual Major

Highly motivated students may choose to enhance their career potential and enrich their business background by completing a dual major. Students are encouraged to major in both marketing and a related field of interest to the student including majors such as Management, International Business, Finance, Modern Languages, Economics, Psychology, etc. These dual majors require some additional courses to complete beyond the normal curriculum.

Other Programs

Global Logistics and Supply Chain Management Minor

Supply Chain Management addresses the integrated management of the set of value-added activities from product development, through material procurement from vendors, through manufacturing and distribution of the good to the final customer. In today’s environment, competition is no longer one company versus another, but rather, one supply chain versus another. Through the Global Supply Chain Management concentration, students learn the theoretical, integration and conceptual skills to manage this competition.

Requirements: Complete all the specified courses in the Management major including the following three required courses:

- MGT335 Management Science
- MGT336 Production/Operations Management (Management Majors)
- or-
- MGT325 Operations Analysis for Business (Non-Management Majors)
- MGT440 Global Supply Chain Management
- or-
- MGT478/MKT478 Global Logistics/Transportation

And two electives from the following list:

- MGT334/MKT334 Purchasing
- MGT390 New Product Development
- MGT440 -or- MGT478/MKT478 Global Supply Chain Management -or-
- Global Logistics/Transportation
- MGT442 Packaging
- MGT474/MKT474 Doing Business in Canada
- MGT476/MKT476 Doing Business in Mexico
- MGT479 Current Topics in Global Logistics and Supply Chain Management
- MGT496 Management Internship in Global Supply Chain Management

MGT335 and MGT336 are prerequisites for most of the elective courses and should be completed by the end of the junior year. These two courses can be taken simultaneously. MGT325 may be substituted for MGT336.

Non-business majors must take MGT101 (Introduction to Management) and ECO255 (Business Statistics) prior to beginning the program.

Entrepreneurship - Small Business Specialization

This program is designed for students interested in starting or owning a small business. Students choosing this specialization should complete all required courses for the B.S. in management or marketing, along with special courses in entrepreneurship and small-business management. To qualify for this specialization, students should contact the department chair.

Fashion Institute of Technology

This program combines professional fashion-related education with marketing courses to provide a concentration for students interested in a career in the fashion industry. Students accepted into the program spend either their junior or their senior year in New York City at the Fashion Institute of Technology, completing practical coursework in fashion design, manufacturing and retailing. Students interested in this program must apply to the program coordinator during their sophomore year. For further information, contact the department chair or Dean Valone.

Additional Information

Internships

Internships qualifying for three hours of academic credit are available to upper-division students majoring in management and marketing. These involve a work-and-study situation with faculty supervision. Many are paid. Students wanting internships for credit must meet certain departmental requirements. For further information, contact the department chair.

Career Preparation

All Marketing majors are expected to register with the Career Center during their junior year (if not before). Registration includes preparation of a formal resume and an interview with the Career Center staff. In addition,
majors are encouraged to actively utilize the office's other career-oriented services. Students should contact the Career Center in Old Main 016.


**REQUIRED COURSES FOR MARKETING MAJORS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
<td>Analytical approach to distribution of goods and services in a market economy. Product, price, promotion and channel decisions within context of overall environment.</td>
</tr>
<tr>
<td>MKT 320</td>
<td>Consumer Behavior</td>
<td>3</td>
<td>Application of concepts drawn from the behavioral sciences (i.e., anthropology, sociology and psychology) to provide insight into consumer decision-making and buyer behavior. Prerequisite: MKT 201 or permission of instructor.</td>
</tr>
<tr>
<td>MKT 331</td>
<td>Fundamentals of Marketing Research</td>
<td>3</td>
<td>Analyzes various techniques for obtaining marketing intelligence for top-level decision-making. Emphasizes marketing-research methodologies and evaluation of data from primary and secondary sources. Prerequisites: MKT 201, ISB 201, ECO 255 and ECO 256.</td>
</tr>
<tr>
<td>MKT 475</td>
<td>International Marketing</td>
<td>3</td>
<td>Issues involved in marketing products in global markets. The focus is on identifying opportunities in world markets and adapting strategies to fit specific national market needs. Prerequisite: MKT 201 or permission of instructor.</td>
</tr>
<tr>
<td>MKT 401</td>
<td>Cases in Marketing Management</td>
<td>3</td>
<td>Case analysis is used to apply advanced practices and policies concerning product, price, promotion and supply chain marketing to marketing decision making. Prerequisites: MKT 320, MKT 331, and senior standing.</td>
</tr>
</tbody>
</table>

**ELECTIVE COURSES IN MARKETING**

*Note: Additional or different marketing electives may be offered. Students should consult the department.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 351</td>
<td>Sales Management</td>
<td>3</td>
<td>Sales policies and planning; sales organization; selection, training and compensation of salespersons; control of sales performance, sales budgets and cost control. Case materials used. Prerequisite: MKT 201. Elective.</td>
</tr>
<tr>
<td>MKT 352</td>
<td>Professional Sales</td>
<td>3</td>
<td>The more significant aspects and techniques of sales, and practical issues pertaining to a career in sales. Prerequisite: MKT 201. Elective.</td>
</tr>
<tr>
<td>MKT 390</td>
<td>New Product Development</td>
<td>3</td>
<td>Examines marketing's role in bringing the 'voice of the customer' into the new product (and new service) development process. Application of a variety of analytical, conceptual and statistical techniques are combined in marketing's role in the development process. Prerequisites: MKT 201, ECO 255 and ECO 256, MKT 320 and MKT 331. Elective</td>
</tr>
<tr>
<td>MKT 396</td>
<td>Promotion / Advertising</td>
<td>3</td>
<td>Applies the theoretical bases from the consumer behavior course to promotional planning and implementation. Student project involves using the mix of promotional components to design an integrated marketing communication campaign. Prerequisites: MKT 201, ECO 255 and ECO 256, MKT 320 and MKT 331. Elective.</td>
</tr>
<tr>
<td>MKT 445</td>
<td>Marketing Strategy Game</td>
<td>3</td>
<td>Student-run firms compete in a simulated business environment and use marketing concepts to make pricing, distribution, promotion and channels of distribution. Prerequisites: MKT 201, MKT 331. Elective.</td>
</tr>
<tr>
<td>MKT 474</td>
<td>Doing Business in Canada</td>
<td>3</td>
<td>This course is an introduction to managing a business in Canada. The commercial aspects of the Canadian marketplace are explored as well as in-depth analyses of individual Canadian businesses are central to this course. Prerequisites: MKT 201, MKT 475. Elective</td>
</tr>
<tr>
<td>MKT 478</td>
<td>Global Logistics</td>
<td>3</td>
<td>This course is an introduction to logistics and transportation aspects of the distribution of goods in North America. The advantages and disadvantages of the different modes of transportation and their impact on business decisions are explored in detail. Prerequisites: MKT 201, MKT 331. Elective</td>
</tr>
<tr>
<td>MKT 496</td>
<td>(MGT 496) Marketing Internship</td>
<td>3</td>
<td>See MGT 496 for description.</td>
</tr>
<tr>
<td>MKT 497</td>
<td>FIT Internship</td>
<td>15</td>
<td>For students in the Fashion Institute of Technology program. Prerequisite: Approval of chair or FIT coordinator.</td>
</tr>
</tbody>
</table>
B.A./B.S. and M.B.A.

James S. Valone, Director.

This program enables a qualified student in most majors to earn an undergraduate degree and an M.B.A. within a five-year period. During the first three years, students take courses to fulfill their core curriculum and major-area requirements, saving electives for their senior year. In their senior year, they complete their undergraduate requirements and use their free electives to take a series of introductory graduate courses. They complete the M.B.A. requirements in the fifth year.

Students may have to take more than the normal 15 credit hours per semester in the fourth year in order to satisfy the requirements of their undergraduate major and complete the MBA program by the summer of their fifth year. This will depend upon the number of credit hours remaining in their undergraduate program at the beginning of the fourth year.

Waivers for MBA classes are based on equivalent courses taken at Canisius College. MBA courses in economics, statistics and accounting may be waived for students who achieve a grade of B or higher in ECO 101-102, ECO 255-256, and ACC 201-202 (or 211-212) respectively. MBA courses in organizational behavior, marketing, operations management and finance may be waived for students in those majors. However, students will not be granted more than 12 credit-hours of waivers. See an advisor for further information on waivers.

Admission
Application is made by students in the spring semester of their junior year. The Graduate Management Admission Test (GMAT) is required. Admission to the program will require meeting current M.B.A. admission standards.

Since individual programs of study are custom designed, interested students should see one of the individuals listed below as early as possible in their academic careers. The graduate section of the program is designed specifically for each student on the basis of his/her undergraduate experience and will vary from student to student. Hence, early and continuous advisement is important. Students in majors with relatively few free electives, e.g. business, science or education, are especially encouraged to see an advisor early in their academic careers to ensure timely completion of required courses.

For further information, students should see Dr. James Valone, Associate Dean of the Wehle School of Business, Dr. F. Scott Wilson, Academic Coordinator for Graduate Business Programs, or Dr. George Palumbo, Professor of Economics.

B.A./B.S. and M.B.A.P.A.

Ian J. Redpath, Director.

This program offers an opportunity for a highly motivated undergraduate student to earn a graduate degree in approximately two years after the completion of their baccalaureate degree. This program provides the student with the degree of master of business administration in professional accounting (suitable for seeking CPA status), along with an undergraduate degree in liberal arts or natural sciences.

Students interested in this program are advised to make their final decision prior to beginning their junior year. Entrance into the graduate portion of the program is contingent upon meeting the appropriate graduate admission standards. Application to the graduate program should be made in the student's senior year.
Mission Statement
The School of Education and Human Services, in concert with our candidates, school partners, alumni and community seek to prepare highly competent, professional and socially committed teachers, administrators and counselors who value the Jesuit traditions of cura personalis, social justice and leadership through service. The mission of the unit is to prepare professionals who possess content, pedagogical and professional knowledge; use their gifts in the service of others; and demonstrate professionalism and leadership in their field.

Academic Programs
All initial teacher preparation and all advanced preparation programs in the School of Education and Human Services are accredited by the National Council for the Accreditation of Teacher Education (NCATE). The major program in athletic training is accredited by the Commission on Accreditation of Allied Health Education Programs. All programs are registered and approved by the New York State Education Department.

The School of Education and Human Services offers curricula leading to undergraduate and graduate degrees in a number of areas, including 46 different teacher certification programs available at the childhood and adolescence level, and in special education and physical education.

The Education Department offers undergraduate degree/certification programs in childhood which include: early childhood education (birth through grade 2); childhood education (grades 1 through 6); a dual certification program in early childhood/childhood education (birth through grade 6); a dual certification program in special education/early childhood (birth through grade 2); and a dual certification program in special education/childhood education (grades 1 through 6). Each of these five programs requires candidates to select a ten course academic concentration in one of seven disciplines: English, mathematics, science, social studies, French, German or Spanish. Candidates enrolled in childhood education programs may elect to take two additional courses in middle childhood education and apply for an extension to teach in grades 7 through 9.

Undergraduate degree programs in adolescence education lead to teacher certification (grades 7 through 12) in one of nine academic disciplines: biology, chemistry, physics, English, mathematics, social studies, French, German and Spanish. Candidates enrolled in adolescence education programs may elect to take two additional courses in middle childhood education and apply for an extension to teach in grades 5 and 6.

The Department of Physical Education, Health and Sport Studies offers a teacher certification program in physical education, and a dual certification program in physical and health education. Minors are offered in sports psychology and sport administration.

The Department of Sports Medicine and Exercise Science has a major program in athletic training and a minor in health and human performance.

At the graduate level, the School of Education and Human Services offers master's degree programs in childhood education, adolescence education, literacy, physical education, special education, special education for educators of deaf/hard of hearing students, counselor education, educational administration and supervision, health and human performance, sport administration and college student personnel administration. These programs are described in the Graduate Catalog.

As required by the New York State Education Department, the pass rates for Canisius College on the New York State Teacher Certification Examinations for the period 2003-2004 are as follows:
- Liberal Arts and Science Test (LAST): 98%
- Assessment of Teaching Skills Written (ATS-W): 99%
- Academic Content Scores: 100%

These scores were reported to Canisius College on December 10, 2004 by the New York State Education Department.
Conceptual Framework
Canisius’ teacher preparation programs focus on knowledge, service, leadership and professionalism, the foundational tenets of our conceptual framework. Academic programs offer candidates the content, pedagogical and professional knowledge, skills and dispositions necessary for quality performance in their field of study. Candidates will demonstrate the ability to reflect on their instructional practice, apply knowledge, exhibit skills and develop dispositions essential for success in P-12 schools. In coursework and in practice, candidates will display a clear understanding of the historical, philosophical, sociological, legal and psychological bases of education and educational policy. Candidates must be committed to the education of the whole person and to the belief that all individuals can learn. Within the contexts of their work, candidates promote authentic learning, social and emotional development, and a commitment to service and social justice in environments that foster respect for diversity and the dignity of all. Candidates are encouraged to participate in the urban community in which the college is located and, through a variety of field experiences and service-learning opportunities, to interact with an ethnically, racially, culturally, religiously and intellectually diverse population. Collaborative projects allow candidates to learn from others, develop a professional orientation, and assume positions of responsibility and leadership. They develop the ability to reflect thoughtfully on their experiences in order to guide professional development and to improve practice and are encouraged to join professional organizations and actively participate in professional conferences.

Performance outcomes aligned with knowledge (K), service (S), and leadership/professionalism (P) are:

Knowledge: The acquisition, creation and dissemination of knowledge is a continuing, transformational process.
Knowledge Outcomes — The competent professional:
• applies theory and research in practice;
• applies effective teacher/counselor/administrator principles;
• demonstrates appropriate dispositions, emphasizing student responsibility for behavior and achievement.

Service: Each individual has gifts and talents that should be developed to the highest level.
Service Outcomes — The competent professional:
• is committed to diversity, equity and social justice;
• has a sense of purpose and power, and in all endeavors works for the benefit of all learners in their respective human-service professions;
• demonstrates appropriate dispositions:
  -enthusiasm toward content/subject area(s);
  -appreciation of social/cognitive/emotional development of all learners;
  -appreciation of human diversity;
  -values development of students’ critical thinking;
  -engages in comprehensive and collaborative planning that meets curricular goals;
• commitment to utilizing assessment information to inform decisions.

Professionalism/Leadership: Each individual has an obligation to improve the world in which we live as advocates for social justice and through a dedication to education as a vehicle for positive social change.
Professionalism/Leadership Outcomes — The competent professional is:
• an effective communicator;
• a reflective practitioner;
• a lifelong learner;
• demonstrates appropriate dispositions:
  -values and utilizes effective communication techniques in professional settings;
  -is committed to, and actively seeks out, opportunities to grow professionally;
  -is committed to advocating for the well-being of children and families.

Admission, Assessment and Continued Progress
Although coursework for all teacher certification programs normally begins in the freshman year, continued registration as a major is contingent upon several assessments. Through the assessment system performance is evaluated at five transition points, providing candidates with ongoing and integrated feedback on their progress. The five major transition points are: (1) program entrance; (2) prior to field experience I; (3) prior to field experience II; (4) after field experience II; and (5) before graduation. Transition to each successive level requires successful performance on all measures described at the transition point. Performance measures include outcomes based on INTASC (Interstate New Teacher Assessment and Support Consortium) principles, the standards of specialized professional associations, and faculty expectations of knowledge, service, leadership and professionalism. The faculty review the progress of each candidate and, if deficits are noted, a plan is developed to address and remediate any shortcomings. Candidates who consistently do not meet program expectations may be counseled out of, or dismissed from, the program.

Assessment at Transition Point 1- Program Entrance:
• Acceptance to the college: SAT score; high school GPA; assessment tests in reading, math, and/or writing as may be required

Assessment at Transition Point 2- Prior to Field Experience I: [EDY 326, EDE 222, EDS 360, SPE 301/311, PED 241]
• Successful portfolio review
• Cumulative GPA of 2.5 or higher; grade of C of higher in all education courses
• Satisfactory performance in prior field placements
• Program specific requirements, as appropriate

Assessment at Transition Point 3- Prior to Field Experience II: [EDY 432, EDE 432, EDS 432, SPE 432/433, PED 441]
• Successful portfolio review
• Cumulative GPA of 2.5 or higher; grade of C of higher in
All education courses
- Satisfactory performance in prior field placements
- Program specific requirements, as appropriate

Assessment at Transition Point 4- After Field Experience II:
- Successful final evaluations from college supervisor
- Successful final portfolio review

Assessment at Transition Point 5- Before Graduation:
- Successful completion of all program requirements

All candidates for teaching certification are required to develop a professional portfolio during their program of study. Using the electronic portfolio model TaskStream, specific common assignments and reflections from selected courses are compiled into an assessment portfolio through which the candidate demonstrates successful performance according to the standards of professional organizations and the Interstate New Teacher Assessment and Support Consortium (INTASC). In addition, TaskStream supports the development of a showcase portfolio for future job searches. Please refer to the Undergraduate Student Handbook and the Program Portfolio Guidelines Handbook for more information.

The development and exhibition of dispositions appropriate to teaching all children is a requirement of all Canisius teacher preparation programs. Candidates who demonstrate an unwillingness or inability to act in a mature, respectful and professional manner will be prohibited from participation in field experiences, including student teaching.

Certification
To obtain initial teacher certification, candidates must pass the examinations required by the New York State Education Department. In early childhood, childhood, middle childhood, adolescence and special education these include the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills-Written (ATS-W), and the Content Specialty Test (CST). The LAST should be taken in the sophomore year or early in the junior year and the ATS-W and the CST in the senior year.

For the professional certificate, candidates will need additional professional development, three years teaching experience, and the completion of an appropriate master's degree within five years. Contact the New York State Education Department at www.nysed.gov for additional information.

Codes
EDE  Childhood Education
EDY  Early Childhood Education
EDU  Teacher Education (applies to several or all programs)
EDS  Adolescence Education
EMC  Middle Childhood Education
SPE  Special Education
PED  Physical Education
HED  Health Education
HHP  Health & Human Performance
ATH  Athletic Training
AS  Area Studies
M  Major
CN  Concentration
FE  Free Elective
Full-Time Faculty: H. Jeanette Willert, Chair; Barbara A. Burns, Nicki Calabrese, Marya Grande, Julie Henry, Michele A. Marable, Robert Nida, Nancy V. Wallace, George Wenner, Paul A. Young.

The professional sequences in early childhood, childhood, special and adolescence education give the prospective teacher a thorough foundation in the many facets of modern American education and a gradually increasing exposure to the realities of the classroom. All programs include extensive field-based experiences that enable the candidate to begin putting into practice the theory and skills learned in the college classroom. The culminating clinical experience, a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the departments in the College of Arts and Sciences.

Early Childhood, Childhood and Special Education Programs

Candidates may choose to major in one of five programs designed for teachers in grades 6 and below: early childhood; childhood; early childhood/childhood; special education/early childhood; special education/childhood. The curriculum and the eight-semester recommended course sequence for each program are described below. Each of these programs requires a specified number of courses in the college’s core curriculum and area studies, 10 courses in one of the seven academic disciplines (academic concentration) and appropriate professional education courses (pedagogical core). The seven academic concentration areas are the same for each area of certification. In all, there are 35 program options at this level.

Areas of Certification

Early Childhood Curriculum (Birth to Grade 2)

1. **College Core:** ENG 101, ENG 102, PHI 101, RST 101 (4 courses)
2. **Area studies:** One course each from AS I, III, IV, V, VI, VII, VIII (except from AS II) Plus, choose three more AS courses, but not more than one from any area, and NONE from AS II. (9-10 courses) (27-32)
3. **Concentration:** English, French, German, Mathematics, Science, Social Studies or Spanish (8-10 courses) (24-36)
4. **Pedagogical Core:** (18 courses) (55)
   - EDE 121 Children’s Literature (3)
   - EDU 122 Technology in Education (3)
   - EDY 208 Infant/Toddler Care and Education (3)
   - EDY 209 Developmentally Appropriate in EC Classrooms: Playing to Learn (3)
   - EDY 225 Language Development and Emergent Literacy (3)
   - EDU 250 Foundations of Education (3)
   - EDE 273 Human Growth and Social Development: Birth through Childhood (3)
   - EDY 306 Music, Movement and the Arts in EC Classrooms (3)
   - EDY 310 Teaching Math/Science in EC Classrooms (3)
   - EDY 313 Family and Community Involvement in EC (3)
   - EDY 326 Literacy and the Young (3)
   - EDU 341 Inclusive Strategies (3)
   - EDE 390 Cognition, Learning and Assessment Birth-Childhood (3)
   - EDY 433 Seminar in Teaching and Assessment-EC (3)
   - EDY 450, 451, 452 Student Teaching Seminar (1)
   - EDY 460 Student Teaching-EC (12)
   - Free Elective(s): 1-2 courses depending on concentration (3-6)

**Total (42 courses)** (127-138)

Early Childhood Education (Birth to Grade 2)\(^1\) Recommended Schedule

**FALL**

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<thead>
<tr>
<th>Freshman Year</th>
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<tbody>
<tr>
<td>ENG 101</td>
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<tr>
<td>EDE 121 or EDU 122</td>
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**Sophomore Year**

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<tr>
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<td>PHI 101 or AS</td>
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<td>CN</td>
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<td>AS</td>
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**Junior Year**

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<td>EDY 326</td>
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**Senior Year**

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<tbody>
<tr>
<td>EDY 433</td>
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**Total 42 courses\(^1\)** (127-138)

\(^1\) All programs require 42 courses. Student teaching counts as four courses. Students should consult DRS (Degree Requirement Summary) advisement form for their concentration. Students will take six courses in any three semesters.
**Childhood Education (Grade 1-6) Curriculum**

1. **College Core:** ENG 101, ENG 102, PHI 101, RST 101 (4 courses)
2. **Area studies:** One course each from AS I, III, IV, V, VI, VII, VIII (except from AS II) Plus, choose three more AS courses, but not more than one from any area, and NONE from AS II. (9-10 courses)
3. **Concentration:** English, French, German, Mathematics, Science, Social Studies or Spanish (8-10 courses)
4. **Pedagogical Core:** (17 courses)
   - EDE 121 Children's Literature
   - EDU 122 Technology in Education
   - EDE 221 Teaching Literacy in Elementary Schools I
   - EDE 222 Teaching Literacy in Elementary Schools II
   - EDE 250 Foundations of Education
   - EDE 273 Human Growth and Social Development: Birth through Childhood
   - EDE 311 Science in the Schools
   - EDE 317 Teaching Math in Elementary Schools
   - EDE 331 Teaching Social Studies in Elementary Schools
   - EDE 341 Inclusive Strategies
   - EDE 390 Cognition, Learning, and Assessment
   - EDE 412 Elementary Curriculum Development and Implementation
   - EDE 421 Early Childhood Curriculum Development and Implementation
   - EDE 432 Seminar in Teaching and Assessment - Elementary
   - EDE 450, 451, 452 Student Teaching Seminar
   - EDE 460 Student Teaching

**Total (42 courses) (128-139)**

**Childhood Education (Grades 1-6) Recommended Schedule**

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<th>FALL</th>
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<td>Total</td>
<td>Total</td>
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</table>

| **Sophomore Year** | |
| EDE 221 & 222 or two CN | EDE 221 & 222 or two CN |
| EDU 250 or EDE 273 | EDU 273 or EDE 250 |
| PHI 101 or AS | AS or PHI 101 |
| CN | AS |
| AS | Total |
| 3 | Total |
| 18-19 | 15-16 |

| **Junior Year** | |
| EDE 317 or 311 | EDE 311 or 317 |
| EDE 331 or EDE 390 | EDE 390 or 331 |
| CN | CN |
| CN/FE | CN/AS |
| AS | AS |
| FE | FE |
| Total | Total |
| 18 | 18 |

| **Senior Year** | |
| EDE 432 | EDE 450, 451, 452 |
| EDE 412 | EDE 455 |
| EDU 341 | Total |
| AS | 12 |
| CN | Total |
| 3 | 13 |
| 3 | 18 |

**Total (44 courses) (134-145)**

**Early Childhood/Childhood Education (Birth to Grade 6) Dual Certification Curriculum**

1. **College Core:** ENG 101, ENG 102, PHI 101, RST 101 (4 courses)
2. **Area studies:** One course each from AS I, III, IV, V, VI, VII, VIII (except from AS II) Plus, choose three more AS courses, but not more than one from any area, and NONE from AS II. (9-10 courses)
3. **Concentration:** English, French, German, Mathematics, Science, Social Studies, or Spanish (24-36)
4. **Pedagogical Core:** (21 courses)
   - EDE 121 Children's Literature
   - EDU 122 Technology in Education
   - EDE 221 Teaching Literacy in Elementary Schools I
   - EDE 222 Teaching Literacy in Elementary Schools II
   - EDE 250 Foundations of Education
   - EDE 273 Human Growth and Social Development: Birth through Childhood
   - EDE 311 Science in the Schools
   - EDE 317 Teaching Math in Elementary Schools
   - EDE 331 Teaching Social Studies in Elementary Schools
   - EDE 341 Inclusive Strategies
   - EDE 390 Cognition, Learning, and Assessment
   - EDE 412 Elementary Curriculum Development and Implementation
   - EDE 421 Early Childhood Curriculum Development and Implementation
   - EDE 432 Seminar in Teaching and Assessment - Elementary
   - EDE 450, 451, 452 Student Teaching Seminar
   - EDE 460 Student Teaching

**Total (44 courses) (128-139)
### Early Childhood/Childhood Education (Birth to Grade 6)
#### Dual Certification Recommended Schedule (continued)

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<th>AS</th>
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<td>18-19</td>
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<td>18-19</td>
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#### Special Education/Early Childhood Education (Birth to Grade 2) Dual Certification Curriculum

1. **College Core:** ENG 101, ENG 102, PHI 101, RST 101 (4 courses)
2. **Area studies:** One course each from AS I, III, IV, V, VI, VII, VIII (except from AS II) Plus, choose four more AS courses, but not more than one from any area, and NONE from AS II. (9-10 courses)
3. **Concentration:** English, French, German, Mathematics, Science, Social Studies, or Spanish. (8-10 courses)
4. **Pedagogical Core:** (22 courses)
5. **Special Education/Early Childhood Education:** (Grade 1-6) Dual Certification Curriculum
   1. **College Core:** ENG 101, ENG 102, PHI 101, RST 101 (4 courses)
   2. **Area studies:** One course each from AS I, III, IV, V, VI, VII, VIII (except from AS II) Plus, choose four more AS courses, but not more than one from any area, and NONE from AS II. (9-10 courses)
   3. **Concentration:** English, French, German, Mathematics, Science, Social Studies, or Spanish. (8-10 courses)
   4. **Pedagogical Core:** (20 courses)

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* Students with a concentration in English have one elective; all others have none.
* In programs that require 48 courses, student will take six course per semester in semesters 3, 4, 5, 6, 7 and either six courses in semester 2 or one course in summer school, or one course during the student teaching semester. Student Teaching and the seminar count as four courses.
Special Education / Childhood Education (Grade 1-6) Dual Certification Curriculum (continued)

SPE 292 Remedial Strategies for Teaching in the CH Content Areas (3)
SPE 311 Nature and Needs of CH Students with Mental Retardation (4)
SPE 312 Multidisciplinary Assessment and Teaching in CH (3)
SPE 330 Nature and Needs of CH Students with Behavior Disorders (4)
SPE 335 Classroom Management of Childhood Classrooms (3)
EDE 390 Cognition, Learning, and Assessment Birth-Childhood (3)
EDE 412 Elementary Curriculum Development and Implementation (3)
SPE 432 Seminar in Teaching and Assessment CH/SPE (3)
SPE 450, 451, 452 Student Teaching Seminar (1)
SPE 455 Student Teaching (12)
Free Electives: 1-2 depending on concentration (3-6)
TOTAL (44 courses) (137-148)

Special Education / Childhood Education (Grade 1-6) Dual Certification Recommended Schedule

<table>
<thead>
<tr>
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<td><strong>Freshman Year</strong></td>
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<td>AS/CN</td>
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<tr>
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<tr>
<td><strong>Sophomore Year</strong></td>
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<td>EDU 250 or EDE 273</td>
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<td>PHI 101 or AS</td>
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<td>AS or PHI 101</td>
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<td>18</td>
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<td><strong>Junior Year</strong></td>
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<td>SPE 310</td>
<td>SPE 330</td>
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<td>SPE 305</td>
<td>SPE 335</td>
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<td><strong>Senior Year</strong></td>
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<td>EDE 390 or AS</td>
<td>SPE 450, 451, 452</td>
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<tr>
<td>EDE 412</td>
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<td><strong>TOTAL</strong></td>
<td><strong>136-147</strong></td>
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Concentrations

Students who major in any of the five elementary or special education programs listed above must also complete one of the eight concentrations listed below:

### English
- ENG 300 Introduction to English Studies (3)
- American Literature: I Pre-Civil War (300/400 level) (3)
- American Literature: II Post-Civil War (300/400 level) (3)
- ENG 322 or 323 Shakespeare (3)
- One course each from 3 of 4 historical periods:
  - I. Medieval - Early 17th Century
  - II. Restoration - 18th Century
  - III. 19th Century
  - IV. 20th Century
- Writing ENG/EDU 405 Teaching Writing in the Schools or ENG 385, 387, 389, 394, 401 or 403 (3)

### French
- FRC 115 Transitional French (4)
- FRC 116 Intermediate French (4)
- FRC 215 Review French (3)
- FRC 216 La Francophonie (3)
- FRC 323 Topics in French Conversation I (4)
- FRC 324 Topics in French Conversation II (4)
- FRC 331 Substance and Style: Effective Writing in French I (3)
- FRC 332 Substance and Style: Effective Writing in French II (3)
- FRC Electives: Four courses (12)

### German
- GER 103 Elementary German (4)
- GER 104 Elementary German II (4)
- GER 215 Review German (3)
- GER 216 Advanced German (3)
- GER 323 Immersion in German (4)
- GER 324 Immersion in Contemporary German Culture (4)
- GER 331 German Stylistics and Advanced Grammar I (3)
- GER 332 Stylistics II and Contemporary Translation (3)
- GER Electives: Four courses (12)

### Mathematics
- MAT 111 Calculus I (4)
- MAT 112 Calculus II (4)
- MAT 211 Calculus III (4)
- MAT 219 Linear Algebra (4)
- MAT 222 Differential Equations or MAT elective (4)
- MAT 230 Bridge to Abstract Math (4)
- MAT 311 Abstract Algebra (4)
- MAT 331 Intro to Modern Geometry (3)
- MAT 351 Statistics or MAT 141 (3-4)
- CSC 110 or 111 Intro. To Computing/Programming (3-4)

### Music
- FAM 119 Masterpieces of Music (3)
- FAM 210 Keyboard Musicianship (3)
- FAM 225 Music Performance (8)
- FAM 230 & Lab Music Theory I (4)
- FAM 240 & Lab Music Theory II (4)
- FAM 250 Music for Children (3)
- FAM 350 Basic Conducting (3)
- FAM Electives: No performance courses; one must be music literature or theory (6)

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* Students with a concentration in English have two electives; all others have one free elective.
* Candidates with a foreign language concentration are required to complete 10 courses. Those who begin at the advanced levels, should consult with the chair of the Modern Language Department. These candidates will replace intermediate language courses with upper-level language electives. Candidates who have limited coursework in the language will be required to take two additional courses at the elementary level. Candidates should also consult with the Modern Language Department regarding Study Abroad opportunities in France, Spain and Germany.
* Music concentration for early childhood and childhood: pending approval by the New York State Education Department.
Department regarding Study Abroad opportunities in France, Spain.

Candidates should also consult with the Modern Language Department regarding Study Abroad opportunities in France, Spain, and Germany.

Science
GEO 325 Physical Geography (AS I) (3-4)
BIO 101, BIO 101 Lab Intracellular/Subcellular Biology (4)
BIO 102, BIO 102 Lab Organismal Biology (4)
CHEM 111, CHEM 111 Lab General Chemistry I (4)
CHEM 112, CHEM 112 Lab General Chemistry II (4)
PHY 129 or 130 Intro to Astronomy/Geology (4)
BIO 201, BIO 201 Lab Evolution, Ecology and Population Biology (4)
Science Electives (3) (9-12)

Social Studies
HIS 107 History of Modern Europe to 1815 (or HIS 111 Men and Ideas in History) (3)
HIS 108 History of Modern Europe Since 1815 (3)
or HIS 113 The Twentieth Century (3)
or HIS 109 History of Asia to 1800 (3)
or HIS 110 History of Asia Since 1800 (3)
HIS 123 History of the U.S. to 1877 (3)
HIS 124 History of the U.S. 1877 to Present (3)
PSC 101 or PSC 102 or PSC 103 Political Science (3)
ECO 101 Principles of Macroeconomics (3)
or ECO 102 Principles of Microeconomics (3)
History of Europe or Third World: one course (3)
History of the U.S.: Two courses (HIS 382 New York State History strongly recommended) (6)

Spanish
SPA 115 Transitional/Intermediate Spanish I (4)
SPA 116 Transitional/Intermediate Spanish II (4)
SPA 215 Review/Advanced Spanish I (3)
SPA 216 Review/Advanced Spanish II (3)
SPA 323 Immersion in Contemporary Hispanic Cultures (4)
SPA 324 Introduction to Hispanic Literatures (4)
SPA 331 Substantive and Style: Effective Writing in Spanish (3)
SPA 332 Contemporary Translation (3)
SPA Electives: 4 courses (12)

Middle Childhood Extension for Candidates in Childhood, Childhood/ Early Childhood, Childhood/ Special Education Childhood
Candidates wishing to obtain an extension to teach grades 7-9 (thus enabling candidates to teach middle childhood grades 7-9 as well as Grades 1-6) must take the EMC 352 and EMC 391 in addition to the courses listed above. Also, candidates must pass the CST in their concentration area.

Adolescence Education
The Education Department offers nine certification programs at the adolescence level (formerly secondary level). The curriculum and eight-semester recommended sequence of courses are followed by nine academic majors or areas of certification for grades 7-12. Candidates are advised to consult the appropriate Degree Requirement Summary (DRS) form for their intended program.

Adolescence Education Curriculum
1. College Core: ENG 101, ENG 102, PHI 101, RST 101 (4 courses) (12)
2. Area Studies: One course each from AS I, III, IV, V, VI, VII, VIII (none from AS II); Plus, choose four more AS courses, but not more than one from any area, and one from AS II. (9-10 courses) (27-32)
3. Concentration/Content Area of Certification:
4. Pedagogical Core: (13-14 courses) (41-44)
EDU 122 Technology in Education (3)
EDS 223 Development of Literacy and Language in EC and CH (3)
EDS 224 Teaching Literacy in Grades 7-12 (3)
EDU 250 Foundations of Education (3)
EDU 251 Human Growth and Social Development: Adolescence (3)
EDU 341 Inclusive Strategies (3)
EDS 360 Evaluation and Teaching Strategies (4)
EDS 390 Cognition, Learning, and Assessment: Adolescence (3)
EDS 402, 403, 404, 405, or 406 Methods of Teaching (in concentration area) (3)
EDS 432-436 Applied Methods of Teaching: Adolescence (3)
EDS 450, 451, 452 Student Teaching Seminar (1)
EDS 470 Student Teaching (12)
Free Electives: 0-2 depending on concentration (0-6)
TOTAL (41-43 courses) (127-155)

Adolescence Education (Grades 7 - 12)10
Recommended Schedule

FALL
Freshman Year
ENG 101 3
EDU 121 or AS 3
Major/AS 3
AS 3
Total 15
Sophomore Year
EDS 223 3
RST 101 or PHI 101 3
EDU 250 or EDS 251 3
Major or AS 3
Elective or AS 3
AS 3
Total 18
Junior Year
EDS 360 3
AS/M/FE 3 or 4
AS/M/FE 3
AS/M/FE 3
Total 18 or 19
Senior Year
EDS 432-436 (prereq,EDS 402-406) 3
EDU 341 3
AS/M/FE 3
AS/M/FE 3
Total 15
TOTAL 127-155

10 Students in Adolescence Education will take 12-17 courses in their academic major. Consult DRS for particular majors. Students with 41 courses will take six courses in two semesters, 42 courses in three semesters, 43 courses in four semesters.

11 EDU 122 is not required for Biology, Chemistry or Physics Education majors. These programs have no free electives. See DRS.

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Areas of Certification

**Biology (Grade 7-12)**
- BIO 101 and Lab - Intro. to Cellular/Subcell. Biology (AS I)
- BIO 102 and Lab - Organismal Biology (AS I)
- BIO 201 and Lab - Evolution, Ecology, and Population Biology
- BIO 203 Cellular Biochemistry
- BIO 352 Junior Seminar
- BIO 451 Senior Seminar
- 6 courses (three courses) plus labs must come from any 3 of 4 tracks:
  - Animal Biology (BIO 313, 315, 340, 365, 366, 410, 460); Biological Diversity (BIO 305, 307, 320, 303,335);
  - Cellular Biology (BIO 418, 419, 425, 426, 435, 445, 455); Genetics/Molecular Biology (BIO 304, 408, 432, 450)
- The remaining three biology electives may come from within these tracks, or from other electives in biology, and at least one must include a lab. A student enrolled in 3 semesters of BIO 300 would fulfill this last lab requirement.
- CHEM 111, CHEM 111 Lab - General Chemistry I
- CHEM 112, CHEM 112 Lab - General Chemistry II
- CHM 227, CHM 227 Lab - Organic Chemistry I
- CHM 228, CHM 228 Lab - Organic Chemistry II

**Chemistry (Grade 7-12)**
- CHM 111 & Lab General Chemistry I
- CHM 112 & Lab General Chemistry II
- CHM 227 & Lab Organic Chemistry I
- CHM 228 & Lab Organic Chemistry II
- CHM 334 Spectrometric Analysis
- CHM 381 Chemistry Seminar
- CHM 430 Analytical Chemistry II
- CHM 480 Chemistry Seminar
- PHY 201, PHY 201 Lab - General Physics I
- PHY 202, PHY 202 Lab - General Physics II

**English (Grade 7-12)**
- ENG 300 Introduction to English Studies
- ENG 311 Women Writers
- British Literature (300/400) Two courses from 2 of 4 historical periods:
  - I. Medieval - Early 17th Century
  - II. Restoration - 18th Century
  - III. 19th Century
  - IV. 20th Century
- Native American Literature or African American Literature
- American Literature: (300/400) Choose from I or II
  - I. Pre-Civil War Period
  - II. Post-Civil War Period
- ENG 322 or 323 Shakespeare
- ENG 370 Teaching Young Adolescent Literature
- ENG 375 Special Topics in Literary Criticism
- ENG 395 The Journey in Literature
- Writing: choose one
  - ENG 385 Persuasive Writing
  - ENG 387 Writing a Life
  - ENG 394 Creative Writing
  - LIN 380 History & Structure of English Language
- EDU 405 Teaching Writing in the Schools
- English Elective: One 300/400 level course

**French (Grade 7-12)**
- FRC 115 Transitional French
- FRC 116 Intermediate French
- FRC 215 Review French
- FRC 216 La Francophonie
- FRC 323 Topics in French Conversation I
- FRC 324 Topics in French Conversation II
- FRC 332 Substance and Style: Effective Writing in French I
- FRC Electives: Four courses

**German (Grade 7-12)**
- GER 103 Elementary German I
- GER 104 Elementary German II
- GER 215 Review German
- GER 216 Advanced German
- GER 323 Immersion in German
- GER 324 Immersion in Contemporary German Culture
- GER 331 German Stylistics and Advanced Grammar I
- GER 332 Stylistics II and Contemporary Translation
- GER Electives: Four courses

**Math (Grade 7-12)**
- CSC 110 or 111 Intro to Computing/Programming (AS VII)
- MAT Elective (AS VII)
- MAT 111 Calculus I
- MAT 112 Calculus II
- MAT 211 Calculus III
- MAT 219 Linear Algebra
- MAT 222 Differential Equations
- MAT 230 Bridge to Abstract Math
- MAT 311 Abstract Algebra I
- MAT 331 Intro to Modern Geometry
- MAT 351 Probability and Statistics
- MAT 300/400 Elective 301 History of Mathematics (recommended)

**Physics (Grade 7-12)**
- CSC 107 (AS VII) Computer Program for Science
- PHY 129 or PHY 130 Intro. to Astronomy or Geology
- PHY 223, PHY 223 Lab - General Physics I for PHY Majors
- PHY 224, PHY 224 Lab - General Physics II for PHY Majors
- PHY 225, PHY 225 Lab General Physics III
- PHY 226 Basic Electronics
- PHY 330 Electricity and Magnetism I
- PHY 332 Statistics and Thermal Physics
- PHY 350 Advanced Laboratory
- PHY 443 Classical Mechanics
- PHY 449 Nuclear Physics Lab
- CHEM 111, CHEM 111 Lab - General Chemistry I
- CHEM 112, CHEM 112 Lab - General Chemistry II
- MAT 111 Calculus I (AS VII)
- MAT 112 Calculus II
- MAT 211 Calculus III
- MAT 222 Differential Equations

Candidates with a foreign language concentration are required to complete 10 courses. Those who begin at the advanced levels, should consult with the chair of the Modern Language Department. These candidates will replace intermediate language courses with upper-level language electives. Candidates who have limited coursework in the language will be required to take two additional courses at the elementary level. Candidates should also consult with the Modern Language Department regarding Study Abroad opportunities in France, Spain and Germany.
Social Studies (Grade 7-12)
GEO 325 Physical Geography (AS I) (3)
American History (3)
American History (3)
American History (3)
European History (3)
European History (3)
European History (3)
European History (3)
Third World History (3)
Third World History (3)
Third World History (3)
HIS 300 Historical Geography (3)
ECO 101 Principles of Macroeconomics (3)
ECO 102 Principles of Microeconomics (3)
PSC 103 Constitutional Basis of American Government (3)
PSC/HIS Elective (3)

Social Studies and History Dual Major (Grade 7-12)
GEO 325 Physical Geography (AS I) (3)
American History (3)
American History (3)
American History (3)
European History (3)
European History (3)
European History (3)
Third World History (3)
Third World History (3)
Third World History (3)
HIS 300 Historical Geography (3)
History Elective (3)
History Elective (3)
ECO 101 Principles of Macroeconomics (3)
ECO 102 Principles of Microeconomics (3)
PSC 103 Constitutional Basis of American Government (3)
PSC/HIS Elective (3)

Spanish (Grade 7-12)\textsuperscript{12}
SPA 115 Transitional/Intermediate Spanish I\textsuperscript{12} (4)
SPA 116 Transitional/Intermediate Spanish II\textsuperscript{12} (4)
SPA 215 Review/Advanced Spanish I (3)
SPA 216 Review/Advanced Spanish II (3)
SPA 323 Immersion in Contemporary Hispanic Cultures (4)
SPA 324 Introduction to Hispanic Literatures (4)
SPA 331 Substance and Style: Effective Writing in Spanish (3)
SPA 332 Contemporary Translation (3)
SPA Electives: 4 courses (12)

Middle Childhood Extension for Candidates in Adolescence Education
Candidates wishing to obtain an extension to teach grades 5-6 (thus enabling candidates to teach middle childhood grades 5-6 as well as adolescent grades 7-12) must take EMC 352 and EMC 391 in addition to the courses listed above.


EDE 121 Children’s Literature 3
Addresses the importance of reading and writing and use of children’s books across curriculum areas. Authors, illustrators, types of literature, and developmental appropriateness are emphasized.

EDE 221 Teaching Literacy in Elementary Schools Part I 3
Examines theories and components of reading and writing processes. Addresses traditional and whole language approaches emphasizing methods and materials for teaching language arts.

EDE 222 Teaching Literacy in Elementary Schools Part II 4
Provides opportunities to apply teaching strategies for literacy development in the classroom setting. Reading and writing processes and integration of language arts are reinforced. Requires 40 hours of field placement.

EDE 273 Human Growth and Development - Birth through Childhood 3
Introduces multiple dimensions of development including influence of family, culture, and society. Examines physical, cognitive, emotional and behavioral theories and emphasizes education’s role in promoting wellness.

EDE 311 Science in the Schools 3
Addresses objectives, curriculum, strategies, and materials and evaluation necessary for teaching science. Emphasizes content, inquiry skills, problem solving and scientific attitude highlighting the NY State Standards.

EDE 317 Teaching Math in Elementary Schools 3
Addresses objectives, curriculum, strategies, materials and evaluation necessary for teaching mathematical concepts. Emphasizes content, inquiry skills and problem solving highlighting the NY State Standards.

EDE 331 Teaching Social Studies in Elementary Schools 3
Addresses the objectives, curriculum, strategies, and evaluation necessary for teaching social studies content. Emphasizes historic, geographic, economic, political and social concepts highlighting the NY State Standards.

EDE 390 Cognition, Learning and Assessment — Birth through Childhood 3
Investigates theories of learning, and current brain research. Integrates emotion and motivation and the neurological basis for learning. Analyzes formal and informal procedures for reporting student progress.

EDE 412 Elementary Curriculum Development and Implementation 3
Concentrates on development, implementation and assessment of curricula as it addresses the NY State standards. Promotes building classroom communities to meet the needs of diverse learners.

EDE 432 Seminar in Teaching and Assessment 3
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the childhood level. Requires thirty hours of field placement.

EDE 450 Student Teaching Seminar 1
Includes mandatory training by NY State Education Department and professional reflection. Training includes drug abuse, tobacco health issues, child abduction, AIDS and prevention of school violence. Prerequisites: Signature; concurrent registration in Student Teaching.

EDE 451 Child Abuse Workshop 0
Mandatory training by NY State Education Department for teacher certification. Occurs during the student teaching seminar.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDE 452</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
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<td></td>
<td>Highlights training by NY State Education Department for teacher certification.</td>
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<td></td>
<td>Occurs during the student teaching seminar.</td>
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<tr>
<td>EDE 455</td>
<td>Student Teaching - CH</td>
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<td></td>
<td>Highlights knowledge, skills, and dispositions of professional educators. Two full-time 7-week placements in childhood classrooms require candidates to become the instructional leader under the supervision of cooperating teachers and college faculty.</td>
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<tr>
<td>EDE 465</td>
<td>Student Teaching - EC/CH</td>
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<td></td>
<td>Highlights knowledge, skills, and dispositions of professional educators. One full-time 7-week placement in each childhood and early childhood classroom requires candidates to become the instructional leader under the supervision of cooperating teachers and college faculty.</td>
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<tr>
<td>EDS 223</td>
<td>Development of Literacy and Language in Early Childhood and Childhood</td>
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<tr>
<td></td>
<td>Addresses language acquisition and literacy development in young children, both native speakers and new English language learners. Focuses on teaching strategies to develop listening, speaking, reading and writing abilities.</td>
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<td>EDS 224</td>
<td>Teaching for Literacy in Grades 5-12</td>
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<tr>
<td></td>
<td>Focuses on methods for assessing and improving students’ reading, speaking, listening and writing abilities in middle and high school. Requires 20 hours of field placement.</td>
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<tr>
<td>EDS 251</td>
<td>Human Growth and Social Development</td>
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<td>Introduces human developmental processes and variations in the middle and high school years: effects of culture, heritage, socioeconomic level, health and environment on student performance.</td>
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<td>EDS 360</td>
<td>Evaluation and Teaching Strategies</td>
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<td>Addresses instructional planning, curriculum development, formal and informal assessment methods and reflecting on one’s own teaching practice. Highlights instruction modifications and various resources to enhance teaching. Requires 30 hours of field placement.</td>
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<tr>
<td>EDS 370</td>
<td>Teaching Young Adolescent Literature</td>
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<td></td>
<td>Prepares teacher candidates to teach young adult literature and literature to young adults, grades 6-12. Candidates will consider what, why and how literature is currently taught and learned in middle and high school classrooms. National and state standards, curriculum, and assessment, as well as contemporary theory and research in English Language Arts will be focal points.</td>
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<tr>
<td>EDS 390</td>
<td>Cognition, Learning and Assessment of Adolescents</td>
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<td>Investigates learning processes, classroom management, and the roles of transfer, retention, motivation, communication and achievement on student performance. Emphasizes the effects of differentiated instruction, cooperation and reinforcement.</td>
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<tr>
<td>EDS 402</td>
<td>Methods of Teaching English</td>
<td>3</td>
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<td>EDS 403</td>
<td>Methods of Teaching Math</td>
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<td>EDS 404</td>
<td>Methods of Teaching Language</td>
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<td>EDS 405</td>
<td>Methods of Teaching Science</td>
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<td>EDS 406</td>
<td>Methods of Teaching Social Studies</td>
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<td>Highlights a variety of teaching strategies including technology applications utilizing the NY State Standards in each subject area. Focuses on research-validated instructional strategies for students with diverse learning needs. Teacher candidates perfect lesson and unit planning; in addition, they present teaching demonstrations to the class. Prerequisite: EDS 360.</td>
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<tr>
<td>EDS 432</td>
<td>Applied Methods of Teaching Adolescence: English</td>
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<td>EDS 433</td>
<td>Applied Methods of Teaching Adolescence: Mathematics</td>
<td>3</td>
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<tr>
<td>EDS 434</td>
<td>Applied Methods of Teaching Adolescence: Modern Languages</td>
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<tr>
<td>EDS 435</td>
<td>Applied Methods of Teaching Adolescence: Science</td>
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<tr>
<td>EDS 436</td>
<td>Applied Methods of Teaching Adolescence: Social Studies</td>
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<td>Choose One: Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the adolescent level. Requires fifty hours of field placement. Prerequisite: EDS 360.</td>
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<td>EDS 450</td>
<td>Student Teaching Seminar</td>
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<td>Includes mandatory training by NY State Education Department and professional reflection. Training includes drug abuse, tobacco health issues, child abduction, AIDS and prevention of school violence. Prerequisite: Signature; concurrent registration in EDS 470.</td>
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<tr>
<td>EDS 451</td>
<td>Child Abuse Workshop</td>
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<td>EDS 470</td>
<td>Supervised Student Teaching</td>
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<td>Highlights knowledge, skills, and dispositions of professional educators. Two full-time 7-week placements in adolescent classrooms require candidates to become the instructional leader under the supervision of cooperating teachers and college faculty. Prerequisites: Overall G.P.A. of 2.50 to date: “C” in each required subject area course (modern language majors must also pass proficiency examination); “C” in each required Education course; interview; EDS 450. Some schools may require certain health tests.</td>
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<td>EDU 122</td>
<td>Technology in Education</td>
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<td>Explores applications of technology in education. Emphasizes evaluation and selection of software, high and low-tech devices, distance learning and state of the art technologies that impact teaching.</td>
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<td>EDU 250</td>
<td>Foundations of Education</td>
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<td>Addresses social, philosophical, legal, historical, organizational, theoretical perspectives on education, including multicultural perspectives. Highlights rights and responsibilities of teachers, students and others involved in education.</td>
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<td>EDU 341</td>
<td>Inclusive Strategies</td>
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<td>Highlights best practices in general education for students with disabilities. Illustrates current developments in special education. Emphasizes collaboration to meet the diverse needs of learners.</td>
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<td>EDU/CMP 405</td>
<td>Teaching Writing in the Schools</td>
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<td>Emphasizes integrating teaching writing into classroom curricula. Candidates develop their own composing abilities and strengthen their ability to teach writing in school settings.</td>
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<td>EDY 208</td>
<td>Infant/Toddler Care and Education</td>
<td>3</td>
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<td>Utilizes developmental theory and research findings to examine issues of attachment, perception, motor skills, cognition, language, emotions and social skills of the infant/toddler. Emphasizes planning healthy environments that foster understanding of children in the context of their families and cultures. Requires fifteen hours of field placement: infant/toddler.</td>
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<td>EDY 209</td>
<td>Developmentally Appropriate Curriculum in Early Childhood Classrooms</td>
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<td>Emphasizes research-supported practice for enhancing children’s physical, cognitive, social, emotional and behavioral development within the framework of the NY State standards. Focuses on developmentally appropriate learning opportunities. Requires fifteen hours of field placement: Grades 1-2.</td>
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<td>EDY 225</td>
<td>Language Development &amp; Emergent Literacy</td>
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<td>This course examines the development of oral language development and initial stages of reading and writing. Listening, speaking, reading and writing are studied as interrelated literacy processes and tools for learning in all areas. Brain research on language acquisition, stages related to natural language learning, the language development of ESL learners, and children from...</td>
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dive cultural and economic backgrounds are examined. Specific strategies to promote children’s social, language and literacy development in early childhood settings are emphasized. EDY 306 Music, Movement and the Arts in Early Childhood Classrooms
Emphasizes the integration of music, movement, and the arts into the curriculum in early childhood classrooms. Explores various media and materials utilized to enrich learning and stimulate children’s creativity.

EDY 310 Teaching Math/Science in Early Childhood Classrooms
Focuses on inquiry methods, problem solving, and diagnostic teaching addressing the NY State standards. Emphasizes hands-on materials, visuals and other multi-model experiences in math/science learning. Requires fifteen hours of field placement: Pre-K-K.

EDY 313 Family and Community Involvement in Early Childhood
Explores family theory and research to identify family and community characteristics and the many influences on them. Emphasizes skills needed to support and empower families through respectful relationships.

EDY 326 Literacy and the Young
This course examines effective methods for determining children’s level of literacy. Strategies for appropriate instruction that reinforces, remediates and/or enriches literacy performances and procedures for accurately reporting progress are emphasized. Issues related to the literacy learning of ESL learners, disabled readers, struggling readers and children from diverse or disadvantaged backgrounds are covered. Early intervention programs with measured success will be examined. Lesson planning and the role of NY State standards is included. Requires twenty hours of field placement Pre-K-K level.

EDY 433 Seminar in Teaching and Assessment
3 Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the early childhood level. Requires fifty hours of field placement: Grades 1-2.

EDY 450 Student Teacher Seminar
Includes mandatory training by NY State Education Department and professional reflection. Training includes drug abuse, tobacco health issues, child abduction, AIDS and prevention of school violence. Prerequisite: Signature; concurrent registration in Student Teaching.

EDY 451 Child Abuse Workshop
Mandatory training by NY State Education Department for teacher certification. Occurs during the student teaching seminar.

EDY 452 Prevention of School Violence Workshop
Mandatory training by NY State Education Department for teacher certification. Occurs during the student teaching seminar.

EDY 460 Student Teaching - Early Childhood
Highlights knowledge, skills and dispositions of professional educators. Two full-time seven -week placements in early childhood classrooms require candidates to become the instructional leader under the supervision of cooperating teachers and college faculty. Prerequisites: Signature; concurrent registration in EDY 450.

EMC 352 Human Growth and Social Development: Middle Childhood
Major concepts, principles, theories, and research related to the intellectual, emotional, physical, social, and moral development of young adolescents.

EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood
Concepts, standards, and research related to middle level curriculum development stressing the importance of a curriculum that is relevant, challenging, integrative and exploratory.

Interdisciplinary middle level curriculum standards and models will be introduced in addition to assessment strategies that promote the continuous intellectual, social, and physical development of all young adolescents.

GEO 325 Introduction to Physical Geography
Physical geography focuses on the reshaping of the Earth’s surface through the many interactions that occur between the atmosphere, hydrosphere, lithosphere and biosphere. It entails an examination of the terrestrial and aquatic character of the Earth, its climate and biodiversity and the sources of energy that promote change. Ultimately, physical geography provides a panoramic view of our relationship to a physical setting that is undergoing constant modification.

SPE 100 Introduction to Special Education
Presents the definitions, causes, psychological and behavioral characteristics of disabilities outlined in the IDEA. Emphasizes assessment procedures, multicultural issues, family involvement and the referral process.

SPE 281 Nature and Needs of EC Students with Learning Disabilities
Describes the effect of mild disabilities on early childhood. Focuses on collaborative strategies for parental involvement. Highlights the CPSE process, placement options and instructional strategies through second grade. Requires 20 hours field placement. Prerequisite: SPE 100. Concurrent enrollment in SPE 282.

SPE 282 Remedial Strategies in the EC Content Areas
Describes developmentally appropriate techniques and materials for instruction to students with disabilities and those at risk of failure. Emphasizes assistive technology for students in early childhood classrooms across the curriculum. Prerequisite: SPE 100. Concurrent enrollment in SPE 281.

SPE 291 Nature and Needs of CH Students with Learning Disabilities
Prerequisite: SPE 100. Concurrent enrollment in SPE 292.

SPE 292 Remedial Strategies in the CH Content Areas
Describes appropriate techniques and materials for instruction to students with disabilities and those at risk of failure. Emphasizes assistive technology for students in childhood classrooms across the curriculum. Prerequisite: SPE 100. Concurrent enrollment in SPE 291.

SPE 301 Nature and Needs of EC Students with Mental Retardation
Describes the effect of Mental Retardation and other developmental disabilities on early childhood. Focuses on collaborative strategies for parental involvement. Highlights the CPSE process and placement options through second grade. Requires 20 hours field placement. Prerequisites: SPE 281 and 282. Concurrent enrollment in SPE 302.

SPE 302 Multidisciplinary Assessment and EC Teaching
Emphasizes a multidisciplinary approach to meet the assessment and learning needs of early childhood students with disabilities. Describes developmentally appropriate techniques and materials for instruction to students with disabilities and those at risk of failure. Emphasizes assistive technology for students in early childhood classrooms across the curriculum. Prerequisite: SPE 100. Concurrent enrollment in SPE 301.

SPE 311 Nature and Needs of CH Students with Mental Retardation
SPE 312 Multidisciplinary Assessment and CH Teaching
Emphasizes a multidisciplinary approach to meet the assessment and learning needs of childhood students with disabilities. Explores assessment and evaluation using the NYS Standards for Severe Disabilities and the Alternative Performance Indicators. Prerequisites: SPE 291 and SPE 292. Concurrent enrollment in SPE 311.

SPE 320 Nature and Needs of EC Students with Behavioral Disorders
Describes the effect of Emotional and Behavioral Disorders on young children and their families. Highlights CPSE, placement options, collaboration and instructional strategies to address academic and behavioral issues through second grade. Requires 20 hours field placement. Prerequisites: SPE 301, 302. Concurrent enrollment in SPE 325.

SPE 325 Classroom Management in Early Childhood Classrooms
Discusses implications of behavior management and importance of a proactive approach to prevent behavior problems. Emphasizes developmentally appropriate classroom structure that supports children with E/BD. Prerequisites: SPE 301, 302. Concurrent enrollment in SPE 320.

SPE 330 Nature and Needs of CH Students with Behavioral Disorders
Describes the effect of Emotional and Behavioral Disorders on children and their families. Highlights NYSED Regulations, collaboration and instructional strategies to address academic and behavioral issues. Requires 20 hours field placement. Prerequisites: SPE 311, 312. Concurrent enrollment in SPE 335.

SPE 335 Classroom Management in Childhood Classrooms
Discusses implications of behavior management and importance of a proactive approach to prevent behavior problems. Emphasizes appropriate classroom structure, and individual and group contingencies to support children with E/BD in grades 1-6. Prerequisites: SPE 311, 312. Concurrent enrollment in SPE 330.

SPE 432 Seminar in Teaching and Assessment
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the special education-childhood level. Requires 50 hours of field placement.

SPE 433 Seminar in Teaching and Assessment
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the special education-early childhood level. Requires 50 hours of field placement.

SPE 450 Student Teaching Seminar
Includes mandatory training by NY State Education Department and professional reflection. Training includes drug abuse, tobacco health issues, child abduction, AIDS and prevention of school violence. Prerequisites: Signature; concurrent registration in Student Teaching.

SPE 451 Child Abuse Workshop
Mandatory training by NY State Education Department for teacher certification. Occurs during the student teaching seminar.

SPE 452 Prevention of School Violence Workshop
Mandatory training by NY State Education Department for teacher certification. Occurs during the student teaching seminar.

SPE 455 Supervised Student Teaching
Highlights knowledge, skills, and dispositions of professional educators. One full-time 7-week placement in each childhood and special education-childhood classroom requires candidates to become the instructional leader under the supervision of cooperating teachers and college faculty. Prerequisites: Signature; overall G.P.A. of 2.50 to date: “C” in each required subject area course (modern language majors must also pass proficiency examination); “C” in each required Education course; interview; concurrent registration in SPE 450. Some schools may require certain health tests.

SPE 460 Supervised Student Teaching
Highlights knowledge, skills, and dispositions of professional educators. One full-time 7-week placement in each early childhood and special education-early childhood classroom requires candidates to become the instructional leader under the supervision of cooperating teachers and college faculty.
The Department of Physical Education, Health and Sport Studies offers several distinct undergraduate programs including dual certification program in physical education and health (K-grade 12); certification in physical education only (K-grade 12); and a series of non-teaching degrees that prepare students to pursue career interests such as sport administration, sport psychology or coaching. These program options prepare candidates for a graduate degree in an area of interest. The department recommends that candidates interested in teaching obtain dual certification in physical education and health.

Teacher Certification Options
The teacher preparation program strives to develop a liberally educated individual who has special knowledge and skills in the areas of movement and sport and their interrelated disciplines. Major emphasis is placed on the development of educational and performance foundations which will prepare an individual to teach in kindergarten through grade 12 or to pursue professional growth through further study and/or graduate work.

Candidates enjoy a continuous and extensive program of clinical and laboratory experiences at the college and in the public schools which provide opportunities for in-school observations, micro-teaching, tutoring, video-taping and large-group instruction. These experiences help to insure that the program remains responsive to the needs of the candidates, students and the profession.

This program of instruction incorporates the standards established for physical education and health at the local school district level, the New York State learning standards for health and physical education, the guidelines set forth by the National Association for Sport and Physical Education (NASPE) and the curriculum standards outlined for health education and health certification by the American Association for Health Education (AAHE). The teacher certification option culminates with a fourteen-week student teaching experience in the public schools. Each student teacher is given the opportunity to experience the privileges and responsibilities of a full-time teacher on both the elementary and secondary levels. An individual choosing to graduate without completing student teaching must fulfill this credit requirement in consultation with his/her advisor.

In order to obtain teacher certification, candidates must pass the tests required by the New York State Education Department: Liberal Arts & Sciences (LAST), ATS-W (Assessment of Teaching Skills-Written), and Content Specialty Tests (CST) in Physical and Health Education. Candidates should consult their advisors for further information.

Admission
Entering physical education/health majors should have a strong high school science background in the biological sciences. Advanced standing from accredited two or four-year institutions of higher education is granted when course content for completed work is substantially the same as course content at Canisius. In most two-year programs, it is expected candidates will enroll in either liberal arts or the physical and health education curricula.

Upon completion of the sophomore year, all candidates must be approved as majors by the department faculty. Acceptance is contingent upon receiving a minimum grade of C (2.0) in BIO 107 and BIO 108 and in all major courses. Candidates who do not meet this minimum standard may not take additional major courses but may retake courses with deficient grades in order to qualify for acceptance into the program. Assessment and continued progress requirements are described in detail in the overview section for the School of Education and Human Services. These requirements include successful review of the candidate's portfolio, successful progression through all five transition points, a 2.5 GPA and a minimum grade of C in all major courses. Candidates must complete all major requirements before student teaching.
Physical Education & Health (K - grade 12)
Dual Certification Curriculum

1. College Core: ENG 101, ENG 102, PHI 101, RST 101
(4 courses)

2. Area Studies: One course each from AS III, IV, V, VI, VII, VIII
(except from AS II) (6 courses)

3. Area Studies: Choose three AS. One each from among III, IV, V, VI, VII, VIII (3 courses)

4. Physical Education courses: (11 courses)
   PED 105 Individual Games
   PED 106 or 206 Team Games I or II
   PED 150 Foundations of Physical Education
   and HED 135 Technology in Health
   PED 207 Dance & Recreational Activities
   PED 211 Movement Education
   PED 216 Gymnastic & Rhythmic Activities
   PED 305 Outdoor Curriculum & Cooperative Activities
   PED 351 Coaching Theory & Techniques
   or PED 381 Motor Behavior
   PED 354 & Lab
   Adapted Physical Education
   PED 371 & Lab
   Measurement & Evaluation in Physical Education
   HHP 235 Kinesiology

5. Health Education courses: (10 courses)
   HED 120 Foundations of Health Education
   HED 205 Wellness & Fitness
   HED 220 Healthy Behaviors
   HED 320 Disease and Illness
   HED 221 Lifeguard, CPR, First Aid & Aquatic
   HED 337 Exercise Principles & Applications
   HED 420 School Health
   HED 461 Health Psychology
   BIO 107 & Lab Human Anatomy & Physiology I
   BIO 108 & Lab Human Anatomy & Physiology II

6. Pedagogical Core: (8 courses)
   EDU 250 Foundations of Education
   EDE 273 or EDS 251
   Human Growth & Development Childhood or Adolescence
   PED 241& Lab Methods of Teaching Physical Education
   PED 441 & Lab
   Methods of Teaching Physical Education: Adolescence
   PED 450A Student Teaching: Childhood
   PED 450 Student Teaching: Adolescence
   PED 470 Student Teaching Seminar
   PED 471 Child Abuse Seminar
   PED 472 Prevention of School Violence Workshop

TOTAL: 42 courses

Physical Education Teacher Certification Curriculum

1. College Core: ENG 101, ENG 102, PHI 101, RST 101
(4 courses)

2. Area Studies: One course each from AS III, IV, V, VI, VII, VIII
(except from AS II) (6 courses)

3. Area Studies: Choose three AS. One each from among III, IV, V, VI, VII, VIII (3 courses)

4. Physical Education Courses: (19 courses)
   PED 105 Individual Games
   PED 106 or 206 Team Games I or II
   PED 150 & Foundations of Physical Education
   and HED 135 Technology in Health
   HED 205 Wellness & Fitness
   PED 207 Dance & Recreational Activities
   PED 211 Movement Education
   PED 216 Gymnastic & Rhythmic Activities
   PED 351 Coaching Theory & Techniques
   PED 371 & Lab Measurement & Evaluation in Physical Education
   HED 221 Lifeguard, CPR, First Aid, Aquatic
   PED 305 Outdoor Curriculum & Cooperative Activities
   PED 354 or PED 371
   HED 221 or PED 351 / 381
   HED 320 or HED 337
   HED 420 or PED 371
   HHP 235 or AS
   AS
   PED 472

TOTAL: 4 classes

5. Pedagogical Core: (8 courses)
   EDU 250 Foundations of Education
   EDE 273 or EDS 251
   Human Growth & Development Childhood or Adolescence
   PED 241& Lab Methods of Teaching Physical Education
   PED 441 & Lab Methods of Teaching Physical Education
   PED 450A Student Teaching: Childhood
   PED 450B Student Teaching: Adolescence
   PED 471 Child Abuse Seminar
   PED 472 Prevention of School Violence Workshop

TOTAL: 40 courses
Physical Education Teacher Certification
Recommended Schedule

FALL
Freshman Year
ENG 101 3 ENG 102 3
BIO 107 & Lab 4 BIO 108 & Lab 4
PED 105/106 or 206 3 PED 105/106 or 206 3
PED 150 & 135 or HED 205 3-4 or HED 205 3-4
or HED 205 3-4
AS 3 AS 3
Total 5 classes 16-17 Total 5 classes 16-17
Sophomore Year
RST 101 or PHI 101 3 RST 101 or PHI 101 3
PED 207 or PED 211 3 PED 207 or PED 211 3
EDU 250 or HHP 235 3 EDU 250 or HHP 235 3
AS 3 AS 3
EDE 273/EDU 251 or PED 241 & Lab 3-4 PED 241 & Lab 3-4
AS 3
Total 6 classes 18 Total 5 classes 15-16
Junior Year
PED 321 or PED 351 3 PED 321 or PED 351 3
PED 354 & Lab or HED 461 3-4 PED 354 & Lab or HED 461 3-4
PED 216 or PED 305 3-4 PED 216 or PED 305 3-4
AS 3 AS 3
AS 3
Total 5 classes 15-17 Total 5 classes 15-17
Senior Year
PED 371 & Lab 4 PED 450A 6
PED 381 3 PED 450B 6
PED 441 & Lab 4 PED 470 1
AS 3 PED 471 0
PE/Health Elective 3 PED 472 0
Total 5 classes 17 Total: 4 classes 13
TOTAL 40 courses 129-132

Non-Teaching Minors

The physical education major may wish to pursue a career other than teaching. Several options are available to prepare candidates for professional careers or graduate training. Candidates may obtain a non-teaching, bachelor of science degree in physical education; a bachelor of science degree in physical education with a minor in sport psychology or a concentration in sport administration. In each program the candidate must combine the elected minor or concentration with the 12 courses in the Physical Education Core. Students in the non-teaching options follow the regular Canisius College Core Curriculum and Area Studies requirements. Specific details may be found on the Degree Requirement Summary forms (DRS) dated 4/2005.

Physical Education Core

HED 120 Foundations of Health Education (4)
PED 150 & HED 135 Foundations of Physical Education and Health Technology (4)
HED 205 Wellness & Fitness (3)
HHP 235 Kinesiology (prereq. BIO 101) (3)
PED 281 Foundations of Sport Management or PED 481 Foundations of Sport Marketing (3)
HED 337 Exercise Principles (3)
PED 354 & Lab Adapted Physical Education (3)
PED 371 & Lab Measurement & Evaluation (4)
PED 381 Motor Behavior (3)
HED 461 Health Psychology (3)
BIO 107 & Lab Human Anatomy & Physiology I (4)
BIO 108 & Lab Human Anatomy & Physiology II (4)
TOTAL (12 courses) (41)

The sports psychology minor provides students interested in psychology and physical education with an interdisciplinary approach to the study of sport, physical activity, health psychology, exercise psychology or coaching. The minor ideally prepares the student for careers in coaching or sport psychology. Candidates may seek advisement from either the Psychology Department or the Department of Physical Education, Health and Sport Studies. Candidates must complete the Physical Education Core listed above and the sport psychology minor courses listed below.

Physical Education/Sport Psychology Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PED 351 Coaching Theory and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PED 450A &amp; Lab</td>
<td>6</td>
</tr>
<tr>
<td>PED 450B &amp; Lab</td>
<td>6</td>
</tr>
<tr>
<td>PED 470</td>
<td>1</td>
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<tr>
<td>PED 471</td>
<td>0</td>
</tr>
<tr>
<td>PED 472</td>
<td>0</td>
</tr>
<tr>
<td>Total 4 classes</td>
<td>13</td>
</tr>
</tbody>
</table>

TOTAL (8 courses) (24)

Concentrations

Candidates may obtain a bachelor of science degree in physical education (non-teaching) by completed the Physical Education Core courses, and will also obtain a sport administration concentration by completed the sport administration courses listed below.

Physical Education/Sport Administration Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105 Linear Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 131 Statistics &amp; Computers</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 101 Principles of Microeconomics</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 102 Principles of Macroeconomics</td>
<td>(3)</td>
</tr>
<tr>
<td>MGT 101 Management of Organizations</td>
<td>(3)</td>
</tr>
<tr>
<td>ACC 201 Financial Accounting</td>
<td>(3)</td>
</tr>
<tr>
<td>ACC 202 Managerial Accounting</td>
<td>(3)</td>
</tr>
<tr>
<td>ISB 101 Management Technology</td>
<td>(3)</td>
</tr>
<tr>
<td>TOTAL (8 courses)</td>
<td>(24)</td>
</tr>
</tbody>
</table>


PED for Physical Education, HED for Health Education

PED Individual Games 3

Lecture and laboratory. Skills, teaching methods, resource units, evaluative instruments and teaching aids for a series of individual games.

An approved psychology course may be substituted with the program director's permission.

Internship is highly recommended in place of a free elective.
PED 106 Team Games I
Lecture and laboratory. Skills, teaching methods, teaching aids, evaluative instruments and authentic assessment rubrics for a series of field games.
HED 120 Principles & Foundations of Health Education and Lab
Examination of historical, current and future direction of health education and health promotion. Consideration of the influence of culture, media and technology in making decisions about personal and community health issues. Theoretical models for behavior change and analyzing how cultural beliefs influence health and wellness. Recognizing safe and healthy environments and demonstrating advocacy skills. 25 hours of field placement required.
HED 135 Technology and Health
The course will provide practical applications of computer software to the classroom and laboratory settings. Includes hand-held computer assessment. Prerequisite: This one credit-hour computer and technology course must be taken in conjunction with PED 130.
PED 150 Foundations of Physical Education
HED 205 Wellness and Fitness
Lecture and laboratory. Skills, teaching methods, resource units, evaluative instruments, teaching aids, leading to an overall understanding of the principles of health and wellness. Focus on physical fitness testing for childhood, childhood obesity and the development of a personal fitness program.
PED 206 Team Games II
Lecture and laboratory. Skills, teaching methods and resource units for a series of games.
PED 207 Dance and Recreational Activities
This skill sequence includes activities such as games of low organization, table tennis, bowling, pool, and a unit in contemporary dance forms.
PED 211 Movement Education
Conceptual bases and practical applications of movement education, perceptual-motor development and rhythmic activities.
PED 216 Gynastics & Rhythmic Activities
Apparatus and tumbling skills. Teaching methods, resource units, evaluative techniques, and safety procedures in assisting individual performers. Survey of various dances and rhythmic activities.
PED 220 Healthy Behaviors
Examines health determinants and the effects on all seven dimensions of health. Assessment of personal lifestyle behaviors and factors influencing current and relevant health issues. Emphasis on personal behavior modification to practice health-enhancing behaviors and to reduce health risks. Guidelines for healthy practices related to nutrition, mental health, cancer prevention, HIV/STD's, cardiovascular disease, stress management, sexuality, physical fitness, drugs and alcohol and relationships. Establishes foundation for living healthy and productive lives.
PED 221 Lifeguard, C.P.R., First Aid and Aquatic
Knowledge, skill techniques and appreciation necessary to meet certification requirements of the American Red Cross. Prerequisite: Department swimming test and completion of departmental recommendation.
PED 241 Methods of Teaching PE/Health and Lab: Birth - Childhood
Development, implementation and integration of a physical education program; teaching strategies geared to the elementary level classroom with emphasis on New York and national learning standards in Physical Education. 30 hour field experience required.
PED 281 / 481 Foundations of Sport Management / Sport Marketing
Administrative leadership of health, physical education, recreation and athletic programs. Nature and philosophy of administration as related to problems and practices of public school administration.
PED 305 Outdoor Curriculum & Cooperative Activities
Philosophy, teaching methods, programming and safety management. Activities may include initiatives, new games, problem solving, trust activities, ropes course, cycling, mountain biking, rock climbing, repelling, cross-country skiing and others.
PED 320 Disease & Illness
Overview of humanity's triumphs and failures in the ongoing fight of illness and disease. Explores history of disease, current health issues and trends to determine outlook for emerging health concerns of the future. Examines various models of disease to explain disease agents and route of transmission throughout the body's systems. Analysis of disease occurrence, predisposing factors, body's immune response, symptoms, prevention, treatment and control.
PED 351 Coaching Theory and Techniques
Principles of effective coaching, including the role of the coach, practice planning, leadership theory, sports psychology and teaching motor skills.
PED 354 & Lab Adapted Physical Education
Field-centered approach to development of physical-education programs for the disabled. Concurrent observation and participation in program for the disabled. Includes non-credit lab. For special populations. Prerequisites: BIO 107-108.
PED 371 & Lab Measurement and Evaluation in Physical Education
Lectures, laboratory, and field experience in the development, application and evaluation of tests. Use and interpretation of statistical techniques. Research in physical education. Focus on the evaluation of the State standards and authentic assessments and NASPE guidelines. 30 hour field experience required.
PED 381 Motor Behavior
Normal developmental patterns of motor skills. How the human organism acquires movement proficiency in those skills. Includes non-credit lab in teaching sport skills.
PED 420 School Health
Explores the most prevalent health and safety issues of school-aged children and youth. Risk factors and resiliency related are examined at individual, classroom, school, family and community levels. At-risk issues such as substance abuse, teen pregnancy, delinquency, violence, dropping out of school, child and teen suicide, child abuse are addressed. Prospective teachers learn strategies for a safe and healthy classroom and school environment. 25 hour field experience required.
PED 441 & Lab Methods of Teaching PE/Health: Adolescence
Development, implementation and integration of a physical education program; teaching strategies geared to the secondary level classroom with emphasis on New York and national learning standards in Physical Education. 40 hour field experience required.
PED 450A Student Teaching PE/Health: Childhood
Seven-week student teaching experience in an elementary school, Grades 1-6, culminating the preparation for teacher certification. Grade: Pass/Fail. Prerequisites: Completion of all other course requirements and department approval; 2.5 G.P.A. in all major courses.
PED 450B Student Teaching PE/Health: Adolescence 6
Seven-week student teaching experience in a high school, Grades 7-12, culminating the preparation for teacher certification. Grade: Pass/Fail. Prerequisites: Completion of all other course requirements and department approval; 2.5 G.P.A. in all major courses.

PED 470 Student Teaching Seminar 1
Six full days during the student teaching semester.

PED 471 Child Abuse Seminar 0
Occurs during the Student Teaching Seminar. Required for NYS Teacher Certification.

PED 472 Prevention of School Violence Workshop 0
Occurs during the Student Teaching Seminar. Required for NYS Teacher Certification.

NOTE: PED 450A, PED 450B, PED 470, PED 471, PED 472 must be registered together during the student teaching semester. This will count as a full semester of four courses, 13 credit hours.

PED 498 Internship 3
Field-based experience in selected areas of physical education. Requires 120 clock hours. Prerequisite: Permission of instructor.

PED 499 Independent Study 3
Prerequisite: Permission of instructor.
The Department of Sports Medicine, Health and Human Performance offers a bachelor of science degree with a major program for athletic training and a minor in health and human performance. The major program is designed to prepare students to enter the athletic training and allied health fields. Emphasis is placed on the development of cognitive knowledge in addition to psychomotor skills. This includes practicum, laboratory and internship experiences. The program prepares students for the Board of Certification examination. The major is accredited by the Commission on Accreditation of Allied Health Education Programs that will transform to the Commission on Accreditation of Athletic Training Education in 2006. The minor is designed to provide students with preparation for the fields of exercise physiology and wellness. In addition, the department offers a collection of courses to assist students in preparation for certification in strength and conditioning.

The athletic training major may be combined with another major within the college, such as teacher education. The student will be required to complete additional coursework and time at the college. A plan of study must be devised as early as possible with the department chair and the academic advisor in the chosen majors.

**Admission to the Major**

Admission is competitive and is based upon skills and knowledge competencies acquired in BIO 107, BIO 107L, BIO 108, BIO 108L, ATH 170 and ATH 132. A minimum of C+ must be obtained in each of the courses as well as an overall QPA of 2.3. Specific admission criteria for the program may be obtained from the program director. Course transfer credit will be evaluated on an individual basis for the required pre-professional courses BIO 107-108. Transfer credit will not be allowed for ATH170, and ATH 132. There are a limited number of student professional openings each year in the program. Transfer student admission is also competitive with a limited number of openings available. A minimum G.P.A. of 2.3 is required. Students must apply for admission by December 1 of the Fall semester in which they are enrolled. Admission is made at the end of the spring semester each year. A two-year (four-semester) minimum time period must be allowed for the completion of the required 875 clinical hours once the student is admitted. An off-campus clinical practicum experience and an off-campus internship experience are required of all majors. Costs for transportation to these experiences as well as for required clothing is the responsibility of the student. A criminal background check is also required at the expense of the student. Additional health requirements and physical and cognitive technical standards are described on the admission application and in the student handbook.

All athletic training applicants are required to submit written acknowledgment indicating that they have read and understand the technical standards related to the professional duties of the discipline. These documents are available in the program director's office. The athletic training education Web site also provides additional information for program applicants.

**Professional Standards for Applicants and Students**

All applicants and students in the athletic training major must meet and continue to meet the professional standards of the program. No one who jeopardizes the health or well being of an athlete/patient, coworker, or self, will be accepted into the program or continue as a student in the program. All applicants and students must possess the necessary physical attributes and exhibit qualities of good judgment, mental strength and emotional stability. All applicants to the professional phase of the program are required to submit a written acknowledgment indicating that they have read and understood the technical standards related to the professional duties of the discipline. The program faculty will be responsible for applying the standards for their students and prospective students.

The health care professional's self-presentation is a vital part of the complex relationship among the athlete/patient, the health care provider and the health care delivery site. The athletic training program reserves the right to limit attire and adornments (such as clothing, jewelry, piercing, tattooing) of the body and its parts (such as hands, face, oral cavity). The program policies document outlines the enforcement of this policy. In all cases, the final appeal may be made to the dean of the School of Education and Human Services.
**Athletic Training Curriculum**

1. **ENG 101, ENG 102, RST 101, PHI 101** (4 courses)  (12)

2. **Area Studies**: Two courses from each of these areas: III, IV, V, VI, VIII; one VII (None from Areas I and II)  (11 courses)  (33)

3. **Major course requirements**: (25 courses)
   - BIO 107-108 & Labs Human Anatomy and Physiology
   - CHM 106 The Chemistry of Life
   - PHY 120 Physics for Allied Health Professions
   - MAT 131 or PSY 201
   - HED 205
   - PSY 201 Statistics for Behavioral Sciences
   - ATH 170 Emergency Care & Intro. to Athletic Training
   - ATH 209 Pathophysiology & Pharmacology A.T.
   - ENG 101, RST 101, PHI 101

**Recommended Schedule**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td><strong>Freshman Year</strong></td>
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</tr>
<tr>
<td>ENG 101 3</td>
<td>ENG 102 3</td>
</tr>
<tr>
<td>ATH 170 3</td>
<td>ATH 132 2</td>
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<tr>
<td>BIO 107 4</td>
<td>BIO 108 4</td>
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<td>AS 3</td>
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<tr>
<td>AS 3</td>
<td>AS 3</td>
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<tr>
<td>Total 16</td>
<td>Total 18</td>
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<table>
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<tr>
<th>Sophomore Year</th>
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</tr>
</thead>
<tbody>
<tr>
<td>RST 101 3</td>
<td>PHI 101 3</td>
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<tr>
<td>HHP 235 3</td>
<td>ATH 232 3</td>
</tr>
<tr>
<td>ATH 209 3</td>
<td>ATH 262 4</td>
</tr>
<tr>
<td>ATH 231 1</td>
<td>CHM 106 3</td>
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<tr>
<td>ATH 261 3</td>
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<td>ATH 342 3</td>
<td>ATH 343 3</td>
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<tr>
<th>Junior Year</th>
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<tbody>
<tr>
<td>HED 205 3</td>
<td>ATH 332 3</td>
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<tr>
<td>MAT 131 or PSY 201  3</td>
<td>ATH 373 1</td>
</tr>
<tr>
<td>ATH 331 1</td>
<td>AS 3</td>
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</table>

**Senior Year**

<table>
<thead>
<tr>
<th>Elective 3</th>
<th>Elective 3</th>
<th>Total 17</th>
<th>Total 16</th>
</tr>
</thead>
</table>

**Total** 130

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**Health and Human Performance Minor**

The Health and Human Performance Minor provides an option for students interested in applied human physiology, clinical exercise physiology, and health and physical fitness careers, as well as for students interested in graduate school.

The minor prepares students for specialty certifications through the American College of Sports Medicine and/or the National Strength and Conditioning Association. Students interested in health and human performance at Canisius College must consult with the department chair and complete an application in the Sports Medicine, Health and Human Performance Department. Health and human performance courses have specific pre-requisites, which are stated in the course descriptions.

Admission to the health and human performance minor is competitive due to a limited number of student slots available and is based on skills and knowledge competencies acquired in B107-108, and HHP 235. Each course must be completed with a grade of C+ (2.3) or higher. The applicant must attain minimum B- (2.7) cumulative Q.P.A. in these three courses and an overall College Q.P.A. of B- (2.7) or higher. Majors from other departments are eligible for selection by meeting the above requirements. Application for the minor must be completed during enrollment in HHP 235. Admission is made following completion of HHP 235 during the summer or fall session.

**Health and Human Performance Minor Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Type</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 107</td>
<td>Human Anatomy</td>
<td>(4)</td>
</tr>
<tr>
<td>HHP 235</td>
<td>Kinesiology</td>
<td>(3)</td>
</tr>
<tr>
<td>HHP 336</td>
<td>Human Physiology</td>
<td>(3)</td>
</tr>
<tr>
<td>HHP 337</td>
<td>Research in Physiology</td>
<td>(3)</td>
</tr>
<tr>
<td>ATH 373</td>
<td>Nutritional Issues For Athletic Trainers</td>
<td>(3)</td>
</tr>
<tr>
<td>HHP 520</td>
<td>Exercise Testing &amp; Prescription</td>
<td>(3)</td>
</tr>
</tbody>
</table>

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1 Area II is automatically fulfilled because this program is in the Social Sciences. Area I is fulfilled by the required natural science courses in this program.

2 Chemistry course may be substituted with approval.

3 Physics course may be substituted with approval.

4 Psychology course may be substituted with approval.
## COURSES: 2005-2007

ATH 132 Practicum in Athletic Training  
Didactic and psychomotor skill instruction with practical examinations. Examinations are an integral portion of the acceptance criteria for the program. Prerequisites: BIO 107 and ATH 170 with a grade of C+ or better and an overall Q.P.A. of 2.3  

ATH 170 Emergency Care and  
Introduction to Athletic Training  
Recognition and immediate care of common illnesses and injuries. Content meets National Safety Council requirements for First Aid and CPR.  
ATH 209 Pathophysiology and Pharmacology for Athletic Trainers  
Discussion of the physiologic changes that occur following orthopedic injuries. Discussion of indications, contraindications and legal issues regarding medications used in the management of athletic injuries. Registration concurrent with ATH 231 or ATH 331.  

ATH 231-232 Practicum in Athletic Training  
Clinical experiences in athletic training. Instruction provided by professionals from various academic institutions, e.g., secondary schools and colleges. Experiences and course material provide acquisition of clinical competency of previously instructed psychomotor skills. Prerequisite: Acceptance into the Athletic Training Program.  

ATH 261 Athletic Injuries/Illnesses I  
Theoretical, practical, empirical study of lower extremity and lumbar spine assessment. Includes lab. Prerequisites: ATH 170, BIO 107, Registration concurrent with ATH 231.  

ATH 262 Athletic Injuries/Illnesses II  
Theoretical, practical, empirical study of upper extremity, head and cervical spine assessment. Includes lab. Prerequisites: ATH 261, ATH 231.  

ATH 331-332 Practicum in Athletic Training  
Clinical experiences in athletic training. Instruction provided by professionals from various academic institutions, e.g., secondary schools and colleges. Experiences and course material provide acquisition of clinical competency of previously instructed psychomotor skills. Prerequisite: Acceptance into the Athletic Training Program.  

ATH 342 Therapeutic Modalities  

ATH 343 Therapeutic Exercise  
Contemporary exercise techniques and equipment in health care of athletes. Biomechanics, physiological effects, rationale and application of exercise techniques and devices. Practical examination. Includes lab. Prerequisite: HHP 235, Registration concurrent with ATH 232 or ATH 332.  

ATH 361 Sports Psychology  
Review of psychological and sociological processes, principles and problems influencing behavior in sport.  

ATH 372 Health Issues for Athletic Trainers  
Current theories, principles, and practices related to personal, school and community health.  

ATH 373 Nutritional Issues for Athletic Trainers  
Fundamental theories and practices of nutrition, diet construction and research findings applicable to athletic performance.  

ATH 382 Principles of Strengths and Conditioning  
Advanced comprehensive study of exercise technique and prescription. Theory and proper techniques of resistance training, emphasizing methods of anaerobic exercise, non-traditional strength training and program design as it relates to specific conditioning programs. Lab included. (Elective)  

ATH 398 Seminar in Health and Sport Medicine  
Development and presentation of educational programming to high school students via the Center for Health and Sports Medicine at Canisius College. Instructional topics will include public speaking, digital technology, research and design and travel to educational sites. Prerequisite: ATH 232 or permission of instructor (Elective)  

ATH 431 Practicum in Athletic Training  
See ATH 231-232 for description.  

ATH 482 Administration of Athletic Training  
Theoretical, practical, and empirical study of administrative requirements of the athletic trainer relative to facility design, duties, liability, drug testing, nomenclature and injury epidemiology. Prerequisites: ATH 262, ATH 331.  

ATH 498 Internship in Athletic Training  
Field-based experience in athletic training or related health care field. Requires 120 clock hours over twelve weeks. Prerequisites: ATH 342, ATH 343, Permission of instructor; application.  

HHP 235 Kinesiology 3  
Scientific study of human movement, emphasizing the basic principles of musculoskeletal anatomy, neuromuscular physiology and biomechanics. Prerequisite: BIO 107 with a minimum grade of C.  

HHP 336 Physiology of Exercise  
Effects of physical activity upon the functioning human body. Restrictions upon levels of physical activity by normal metabolic limitations. Lab required (HHP 336L) for Athletic Training Majors. Prerequisite: BIO 108 with a minimum grade of C.  

HHP 336L Physiology of Exercise Lab  
Laboratory experiences in physiology of exercise culminating in laboratory write-ups. Lab required (HHP 336L) for Athletic Training Majors. Prerequisite: Concurrent registration in HHP 336.  

HHP 337 Research in Physiology of Exercise  
For HHP Minors. This course may be substituted for HHP 336L. Laboratory experiences in physiology of exercise culminating in a scientifically based research report. Prerequisite: Concurrent registration in HHP 336. Permission of instructor.  

HHP 494 Health and Human Performance Seminar  
Discussion of pertinent topics in exercise science. Prerequisites: B- or above in HHP 235 and HHP 336.  

HHP 498 Internship in Human Performance  
Field-based experience in selected areas of exercise science. Requires 120 clock hours over twelve weeks. Prerequisite: Permission of department chair and instructor.  

HHP 520 Exercise Testing & Prescription  
Instruction in the guidelines for exercise testing and prescription. Didactic instruction and practical training will be used to educate students in the various methodologies used to assess adult health and fitness. Practical experiences include the assessment of cardiovascular risk, coronary artery disease risk stratification, body composition assessment, functional capacity assessment and muscular fitness assessment.
As computers increase their impact on all areas of life, knowledge of how to apply computers to the task at hand is an increasingly important skill. The Computer Science Certificate Program gives students a strong foundation in computer science concepts without sacrifice to their primary field of study. Students who complete the certificate program will have an in-depth knowledge of programming, an understanding of computer hardware and theory and advanced study in topics related to the student's future plans.

The Computer Science Certificate Program is a 29-credit-hour curriculum designed to be taken independently or in conjunction with another degree at Canisius College. There are both majors and minors in computer science for students who would like a greater or lesser background in the field.

Candidates for admission to the certificate program, whether presently Canisius students or not, must apply to the program director. Before being admitted to the program, candidates must complete CSC 110, CSC 111 and CSC 111L with a grade of at least C in each course.

Admission
Prospective Computer Science Certificate students must have a cumulative G.P.A. of at least 2.0, and at least a C in CSC 110, CSC 111 and CSC 111L and any other computer science courses taken to date. Students wishing to become a computer science certificate student should file a Computer Science Declaration application with the Computer Science Department (form available in WTC 207). On the acceptance into the certificate program, students will be assigned an advisor in the department.

The performance of all certificate students is subject to review relative to their continuation in the program. Academic record (at least a 2.0 overall G.P.A.), computer science course record (at least a 2.0 G.P.A. in all computer science courses and labs) and the demonstration of necessary skills will be the basis of the evaluation. Students not performing up to the necessary standards will be advised of the problem and the recommended corrective actions.

Computer Science Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 110 Introduction to Computing</td>
<td>(3)</td>
</tr>
<tr>
<td>CSC 111 Introduction to Programming</td>
<td>(4)</td>
</tr>
<tr>
<td>CSC 212 Data and Files Structure</td>
<td>(4)</td>
</tr>
<tr>
<td>CSC 213 Large Scale Programming</td>
<td>(4)</td>
</tr>
<tr>
<td>CSC 253 Computer Hardware</td>
<td>(3)</td>
</tr>
<tr>
<td>CSC 281 Automata and Algorithms</td>
<td>(3)</td>
</tr>
<tr>
<td>Computer Science electives : two 300-400 level CSC courses</td>
<td>(8)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>(29)</strong></td>
</tr>
</tbody>
</table>
The goal of the Women's Studies Program is to explore the complexities of women's lives and experiences, leading to a more complete understanding of humanity as a whole. The subject matter of women's studies is all of women's experience as it has been constructed and described for and by women in a gendered world. The program emphasizes contemporary issues that affect women, the historical experiences of women, and the authority of female voices in literature, art, politics and rhetoric.

Women's Studies is designed for students planning careers in which interaction with women is an important aspect (e.g. business, law, health related professions and education) and for students who want to enrich their understanding of how women have shaped their world. For this reason, the Women's Studies Program is multi-disciplinary and comparative. The Women's Studies Program offers a certificate and a minor which are described below. The director of the program will appoint an advisor who will help the student choose appropriate courses in either the Women's Studies Certificate Program or the minor.

All Women's Studies courses except WST 201 are offered in traditional academic departments and meet the criteria established by those departments with regard to area studies or majors. The program provides the student with a multi-disciplinary program in place of free electives and a strategy for coordinating a number of courses in the core curriculum to reflect an interest in women's studies.

**Women's Studies Certificate Program**

WST 201 Introduction to Women's Studies  
(grade of C or better required)  
(3)

Women's Studies electives: seven courses approved for Women's Studies credit  
(21)

**TOTAL (8 courses)  
(24)**  

**Women's Studies Minor**

WST 201 Introduction to Women's Studies  
(grade of C or better required)  
(3)

Humanities electives: two courses approved for Women's Studies credit  
(6)

Social and natural sciences electives:  
two courses approved for Women's Studies credit  
(6)

**TOTAL (5 courses)  
(15)**  

**COURSES**

WST 201  Introduction to Women's Studies  
3

The study of women's roles and achievements from a feminist perspective, including contributions as well as barriers to full participation in all aspects of society.  
(AS II)

Courses approved for Women's Studies credit are as follows. Course descriptions may be found in the appropriate departmental listing.

- WST203 (ENG 203) Identity and Culture (AS III)
- WST 211 (HIS 211) Women in the Western World (AS IV) (ICD)
- WST 214 (CLS 214) Classical Drama Then and Now (AS III)
- WST 215 (CLS 215) Women in Antiquity (AS III)
- WST 259 (FAH 259) Women and Art
- WST 262 (ENG 262) Images of Aging in Literature (AS III)
- WST 291 (SOC 291) Gender and Society
- WST 295 (ANT 295) Men and Women in Pre-History
- WST 300 (ECO 300) Economics of Work
- WST 301 (COM 301) Family Communication
- WST 309 (ENG 309) Modern British Literature
- WST 311 (ENG 311) Women Writers
- WST 312 (ENG 312) American Women Poets: Reading and Writing (AS III)
- WST 313 (ENG 313) Literature and Psychology (AS III)
- WST 318 (PSY 318) Social Psychology (AS II)
- WST 321 (BIO 321) Biology of Women (AS I)
- WST 324 (ENG 324) Readers & Writers in 19th Century America
- WST 327 (COM 327) Gender Differences in Communication
- WST 329 (PSY 329) Leadership and Motivation
- WST 337 (CRJ 337) Violence and the Family
- WST 348 (ENG 348) English Novel II
- WST 359 (SOC 359) Women and Crime
- WST 367 (HIS 367) Slavery
- WST 368 (ENG 368) Native American Literature
- WST 369 (ENG 369) Contemporary Fiction (AS III)
- WST 373 (ENG 373) Willa Cather and her Circle
- WST 377/ENG 377 Images of Women (Area III)
- WST 390 (SOC 390) Marriage and the Family
- WST 395 (HIS 395) History of American Women
- WST 420 (RST 420) Feminine Role in Religion (AS VI)
- WST 498 Internship
- WST 499 Independent Study
**pre-professional programs**

**pre-engineering**

**2+2 Program, 3+2 Program**

Full-Time Faculty: H. David Sheets, Director; Daniel F. Dempsey, James C. Lauffenburger, Kenneth D. Scherkoske.

For the Pre Engineering track requirements and recommended schedule, consult the Pre Engineering section under the College of Arts and Sciences.

**pre-law**

The Frank G. Raichle Pre-Law Center

Faculty: Peter J. Galie, Director, [Department of] Political Science; Robert Klump, Associate Director, Judith A. Dompkowski, English; Patricia E. Erickson, Criminal Justice/Sociology; Walter G. Sharrow, History, James V. Jones, Director, Career Center

Students wishing to choose law as a career may major, as undergraduates, in any field or fields. They should bear in mind, however, that their aim must be the attainment of a broad liberal education. Specifically, they should attain considerable skill in language, knowledge of human institutions and values and an ability to reason critically. The committee therefore recommends that students wishing to choose law as a career include in their undergraduate programs of study the following:

1. Courses which develop skills of accurate comprehension and precise expression in language.
2. Courses in which knowledge of human institutions can be attained, with special reference to English and American constitutional law and history.
3. Courses which develop abilities in logic and appreciation of ethical and political values.
4. Courses in elementary accounting or economics or both. The Frank G. Raichle Pre-Law Center assists students who wish to enter the legal profession by offering counseling and advisement regarding law schools and the Law School Admissions Test and by providing scholar incentive awards.

The center also sponsors an annual lecture series on problems of law and American society. Students interested in law are encouraged to contact a member of the pre-law committee at their earliest opportunity and are encouraged to join the pre-law fraternity, Phi Alpha Delta.

**The Program**

**Freshman Year:**

Leg 100 Exploring Legal Careers.......................... 1 credit
A one credit course providing pre-law students with information on the following:
- What is the Raichle Pre-law Center?
- What is the legal profession all about?
- What opportunities does the practice of Law provide?
- Should I go to law school?
- Building a resume that will help get you into law school
- Choosing a curriculum that will be attractive to law school admissions committees
- Choosing internships wisely
- The LSAT(Law School Aptitude Test)

**Sophomore Year**

CMP 302 Basics of Writing for pre-Professionals ... 3 credits
This course serves pre-law students, among others, who need to sharpen their writing skills. Students will draft prose and develop effective strategies for revising editing and proofreading.

**Junior Year:**

Fall Semester
PSC 300 Legal and Analytical Reasoning............... 3 credits
Using a variety of legal documents as texts this course will help students develop and appreciation and
understanding of legal reasoning and analysis. Emphasis on reading comprehension

Spring Semester/Summer session
LSAT online preparation course available through the Center for Professional Development. Non-credit

Senior Year
Fall Semester
Getting into Law School: A Strategy for Success
Non-credit

A service provided by the Raichle Pre-Law Center consisting of sessions on the following topics:
• Selecting the right law school
• Applying to law school
• Preparing for the LSAT
• Writing the personal statement
• Updating resumes
• Obtaining letters of recommendation

pre-med (and health sciences)

Marguerite Kermis, Psychology, Director; Joseph A. Tomasulo, Biology, Associate Director; James Lauffenburger, Physics; Mary C. O’Sullivan, Chemistry; Richard H. Escobales, Mathematics; David J. Greenman, English; Thomas Corso, Biochemistry; Cary M. Anderson, Dean of Students.

Students interested in professional careers in medicine, dentistry, podiatry, optometry, physician assistant and veterinary medicine most frequently major in biology, chemistry or biochemistry. Further information can be found in the catalog sections for each of those departments. Recently, a growing number of students have majored in psychology, physics, mathematics, English, and philosophy. A general plan for these non-science majors appears below. Specific course requirements vary somewhat from one professional school to another, but there are some common requirements:

Biology: At least one year of general biology with laboratory (BIO 101-102).
Chemistry: One year of general chemistry and one year of organic chemistry with laboratories (CHM 111-112, 227-228).
Physics: One year of introductory physics with laboratory (PHY 201-202 or 223-224).
English: One year of college English which stresses composition (ENG 101-102).
Calculus: Many of the more competitive medical schools require one year of college level calculus.
Behavioral Science: One year of either psychology or sociology.

The Dr. George E. Schreiner Pre-Medical Center has been established to enhance the quality of the undergraduate experience for students who wish to enter the various fields of medicine. Its greatest impact is in helping pre-medical students to crystallize their ideas concerning medicine as a profession and to provide them with some understanding of the unique aspects of the various medical specialties. This crystallization is accomplished with information about various medical schools, medical specialties, and medical practices.

The Center assists students in choosing the right medical school and helps them to prepare for entrance examinations to these institutions. Through an increasing number of scholarships, the Center provides financial assistance to qualified students pursuing medical and health-related professional degrees. The Pre-Medical Center also sponsors a distinguished lecture series where nationally and internationally known speakers address significant topics in the medical field.

Students interested in medicine should contact members of the Health Science Advisory and Recommendations Committee (listed above) at their earliest opportunity.

Early Assurance Program

The Pre-Medical and Pre-Dental Early Assurance programs at Canisius are offered in conjunction with the State University of New York at Buffalo Medical School and Dental School and the State University of New York Upstate Medical School in Syracuse, New York. Since these are public institutions which are financially supported by the State of New York, they give preference to students who either are residents of the state or who attend college in the state.

During their sophomore year, students with the required overall GPA and SAT scores may apply for the early assurance admission. Upstate Medical School requires SATs
of 1300 or more and a GPA of 3.6 in order to apply. Once accepted, students must maintain this GPA until graduation. SUNYAB Dental School requires a 3.3 GPA and 1250 SATs. Students must maintain this GPA and also must take the Perceptual subtest of the DAT and achieve a score equal to the average of the previous year’s entering class. SUNYAB Medical School requires 1400 SATs and a GPA of 3.8 in order for students to apply for Early Assurance. Once accepted, students must maintain a 3.7 overall GPA. For both medical schools, Early Assurance students are not required to take the MCAT. These are highly competitive programs that accept few students.

**Joint Degree Programs**

Canisius College has a seven-year joint-degree program with a growing list of professional schools including the State University of New York at Buffalo Dental School, Lake Erie College of Osteopathic Medicine, the Ohio College of Podiatric Medicine, the New York College of Podiatric Medicine and the SUNY State College of Optometry. The first three years are spent at Canisius and the last four years at the professional school. A bachelor’s degree (B.A.) will be awarded from Canisius College after completion of the first year of dental, osteopathic, optometric or podiatric medical school. The D.D.S., D.O., D.P.M., or O.D. degree will be awarded at the end of seven years. To remain in good standing, students must fulfill all requirements established by the professional school.

For further information on any of the above programs, students should consult one of the advisors listed above.

During the past ten years, Canisius graduates have enjoyed an overall acceptance rate of 92%, with an acceptance rate of 94% specifically for medical school.

### Pre-Med Professional Program for Non-Science Majors

**FALL**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>BIO 101</td>
<td>5</td>
</tr>
<tr>
<td>CHM 101</td>
<td>5</td>
</tr>
<tr>
<td>Calculus or Statistics</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
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**SPRING**

<table>
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<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 102</td>
<td>3</td>
</tr>
<tr>
<td>BIO 102</td>
<td>5</td>
</tr>
<tr>
<td>CHM 112</td>
<td>5</td>
</tr>
<tr>
<td>Calculus or Statistics</td>
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</tr>
<tr>
<td>Total</td>
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**Sophomore Year**

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>PHI 101</td>
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</tr>
<tr>
<td>CHM 227</td>
<td>5</td>
</tr>
<tr>
<td>PHY 201</td>
<td>5</td>
</tr>
<tr>
<td>Course in major</td>
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</tr>
<tr>
<td>Total</td>
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</tr>
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</table>

**Junior Year**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH 301 or BIO 203 (recommended)</td>
<td>5</td>
</tr>
<tr>
<td>Course in major</td>
<td>3</td>
</tr>
<tr>
<td>AS (RST 448 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>AS</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
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</table>

**Senior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course in major</td>
<td>3</td>
</tr>
<tr>
<td>Course in major</td>
<td>3</td>
</tr>
<tr>
<td>Course in major</td>
<td>3</td>
</tr>
<tr>
<td>AS</td>
<td>3</td>
</tr>
<tr>
<td>AS (PHI 469 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
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<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

**TOTAL**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>134</td>
</tr>
</tbody>
</table>

The program is flexible; it represents a model that could easily be modified to meet the requirements of most departments. Once students have decided upon a major, they must design their own curriculum with the guidance and approval of both the chair of that major and a Health Science advisor. The program must meet the requirements of the core curriculum, the particular major chosen (i.e., English, philosophy, psychology, etc.) and the requirements of the health-professional schools. In place of the core curriculum, the All-College Honors Program is highly recommended.

Note: This program satisfies both the 120-credit hour and 40-course requirements for graduation. Areas I and VII are excluded because of the required courses in science and mathematics. One additional area is excluded because of the student’s academic major.

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**Pre-pharmacy**

Health Professions Advisor: Marguerite D. Kermis  
Biochemistry Program Director: Thomas D. Corso

Some students take two years at Canisius College to complete the pre-pharmacy requirements and then enter a four-year pharmacy program at another school. The two-year pre-pharmacy students will be listed as Biochemistry majors, since the first two years of the biochemistry program track satisfy most pharmacy school admission standards. A student also has the option of completing a four-year degree in any major before starting pharmacy school, as long as the required courses are taken.

Students applying to transfer to most pharmacy schools must take the Pharmacy College Admission Test (PCAT). Information about this test is available from the Psychological Corporation, 555 Academic Court, San Antonio, Texas 78204-2498. Phone: 1-800-622-3231.

Pre-pharmacy students, who decide to continue their education at Canisius after sophomore year, are on track for the biochemistry major.

For the Biochemistry Pre-Pharmacy track requirements and recommended schedule consult the Chemistry and Biochemistry section under the College of Arts and Sciences.
The Catholic Studies minor at Canisius College examines the doctrinal, historical, legal, spiritual and cultural traditions of Catholicism. In addition, it includes dialog with people of other faiths and the examination of intellectual disciplines that have been influenced by Catholicism, such as art, history, law, literature, politics, philosophy and the sciences. As a result, this program requires study in several departments of the college and highlights the Catholic tradition upon which the college was founded.

Any person who wishes to know more about the Catholic heritage, to further one’s personal development, or to pursue a principle-based career in public service, medicine or law would find this minor relevant. Those with church-related career or academic objectives would also want to complete this program. Future seminarians, lay ministers, teachers especially interested in the Catholic educational system, those preparing for graduate work in theology or religious studies and anyone planning to pursue a career in a Catholic organization such as a social work agency or health care system would be the types of people whom this program would help. The program director will help the student choose appropriate courses or appoint an advisor to do so.

All courses in the Catholic Studies minor except CTH 400 are offered in traditional academic departments and meet the criteria established by these departments for area studies or major credit. Most courses in the minor are part of the college’s core curriculum and therefore can be taken as a way to fulfill and focus the requirements for area studies.

### Structure of the Catholic Studies Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RST 231</td>
<td>Introduction to Catholic Studies (AS VI)</td>
<td>3</td>
</tr>
<tr>
<td>CTH 400</td>
<td>Research in Catholic Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENG 303</td>
<td>Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 320</td>
<td>Contemporary American Catholic Fiction (AS III)</td>
<td>3</td>
</tr>
<tr>
<td>FAH 224</td>
<td>Medieval Art (AS III)</td>
<td>3</td>
</tr>
<tr>
<td>FAH 245</td>
<td>Renaissance Art (AS III)</td>
<td>3</td>
</tr>
<tr>
<td>HON 328</td>
<td>Age of Michelangelo</td>
<td>3</td>
</tr>
<tr>
<td>FAM 217</td>
<td>Medieval &amp; Renaissance Music (AS III)</td>
<td>3</td>
</tr>
<tr>
<td>RST 235</td>
<td>Religion and Politics (AS VI)</td>
<td>3</td>
</tr>
<tr>
<td>HON 319</td>
<td>Religion and Politics: U.S. Roman Catholic Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>PHI 352</td>
<td>Medieval Philosophy (AS V)</td>
<td>3</td>
</tr>
<tr>
<td>PHI 372</td>
<td>Catholic Social Thought (AS V)</td>
<td>3</td>
</tr>
<tr>
<td>ZPR 351</td>
<td>Contemporary Catholic Social Ethics (AS V &amp; VI)</td>
<td>4</td>
</tr>
</tbody>
</table>


- **RST 231 Introduction to Catholic Studies (AS VI)**
  - Studies the origins of Catholicism and the major movements and personalities in Catholic theology, history, culture and spirituality. The Catholic worldview and its relation to society, culture and the intellectual life will also be considered.
  - **Prerequisite:** RST 101.

- **CTH 400 Research in Catholic Studies**
  - Capstone course in which a student does independent research and a project on a person or topic of interest within the Catholic Studies minor under the supervision of a faculty advisor.
  - Internships: May be done with special readings and reflection as an extra course for 3 credits or included within a project for CTH 400.
  - **Prerequisite:** Consent of director.

Courses in specialty areas follow. Course descriptions and their years of offering will be found in the appropriate departmental listing.
Linguistics is the field of study devoted to the scientific investigation of language, a field of inquiry that has fascinated people for literally thousands of years. Linguistics uses the scientific procedures of data collection and the testing of hypotheses to develop its theories regarding the nature of language and its use in society. Linguistics encompasses a broad array of issues, including, for example, the nature of the relationship between language and thought, the role of language in social interaction, the definition of national and ethnic identities, the distinction between human and animal communication, and the consideration of questions relating to the very core of what it is to be human.

The subject of its concern and the breadth of its coverage are the very factors responsible for the appeal of linguistics to scholars and professionals in such diverse fields and professions as anthropology, sociology, biology, philosophy, psychology, computer science and artificial intelligence, education, composition and language teaching, law and medicine. The study of linguistics imparts intellectual discipline, strengthens analytical skills, develops facility with oral and written language and fosters understanding of and appreciation for the subtleties and complexities of language and its role in the human experience.

For students interested in exploring this field, the Linguistics Department offers a range of introductory and upper level courses in linguistics and applied linguistics, including courses in composition and English as a foreign language, to complement other areas of study. The courses serve as electives, area studies, or as requirements in some majors.

Composition courses focus upon discourse analysis and grammatical relations. These courses share a commitment to exploring the unique properties of written language that distinguish it from oral language. Written language preserves the human experience, and knowledge of its fundamental properties, particularly the grammar, expands critical thinking and expression, leading to the effective writing required in all areas of scholarly endeavor.

The English as a foreign language courses are grounded in contemporary second language acquisition research and theory, utilizing scientifically founded methodology and instructional practices. Students may enroll in composition, conversation, reading and phonetics courses as needed or desired.

The Department also houses the Tutoring Center for the College, staffed by Canisius College students who serve as peer tutors under the direction and supervision of faculty. Continuous ethnographic research and development in learning and instructional practices create the foundation for highly effective tutoring services that promote and support the active, resourceful study and effective writing needed to meet the intellectual demands of the various curricula at Canisius College.

**COURSES: 2005-2007**

**CMP105 Composition I**
Covers the basic writing processes, moving from expressive writing to expository and transactional writing. Includes instruction in grammar.

**CMP106 Composition II**
Begins with exposition and moves to a focus on argument, addressing grammatical relations and the structural and organizational aspects of writing papers. A research paper is required.

**CMP115 General Composition**
This course focuses on common grammatical problems, punctuation, organization of ideas, and rhetorical modes. Recommended for any student who wants to improve writing skills.

**CMP302 Writing for Success**
Designed for students who have completed ENG101 and 102 and wish to continue developing skills in writing. Ideal for those planning to pursue graduate study, or careers in business, law, communication, education and the sciences. (AS III)

**CMP405 Teaching Writing in Schools**
Grammar for teachers! This course fulfills the writing requirement for English Education majors. It focuses on (1) the study of grammar and (2) how writing is taught in grades K-12.

**CMP499 Directed Study in Writing**
Directed study under the supervision of a faculty member.

**EFL107 - Grammar and Composition**
Begins with a review of grammar and proceeds to the structural and organizational aspects of writing as well as differences between speaking and writing Standard American English.

**EFL108 - Grammar and Composition**
Refines syntactic skills and reviews rhetorical modes. Further the development of the organizational aspects of academic writing with an emphasis on essay writing.

**EFL109 Advanced Composition**
Explores rhetorical models to develop proficiency in written expression.

**EFL215-216 Advanced English**
Analysis of advanced grammar problems and sociolinguistic behaviors in American culture. Intensive work in critical reading, writing, speaking and research skills.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFL301</td>
<td>Phonetics of English</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Detailed analysis of the English sound system and current trends in linguistics. Practice in phonemic transcription, listening and correct pronunciation.</td>
<td></td>
</tr>
<tr>
<td>EFL 499</td>
<td>Directed Studies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Provides the opportunity to pursue individual study with a professor on a mutually determined topic of concern or interest relating to the English language.</td>
<td></td>
</tr>
<tr>
<td>LAN101</td>
<td>Language and Learning</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Explores the relationship between language acquisition processes and perception and conceptualization, providing the student with practical knowledge of the function of language in learning and socialization.</td>
<td></td>
</tr>
<tr>
<td>LIN201</td>
<td>The Science of Linguistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduces the study of language as a uniquely human behavior, exploring the relationship between linguistic theory and scientific inquiry. Recommended for science majors and social science majors. (ASII)</td>
<td></td>
</tr>
<tr>
<td>LIN202</td>
<td>The Science of Linguistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Focuses on the systematic study of language as a uniquely human behavior, exploring sociolinguistic behavior and language change.</td>
<td></td>
</tr>
<tr>
<td>LIN250</td>
<td>Contemporary Linguistics</td>
<td>3</td>
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<tr>
<td></td>
<td>Conveys an understanding of fundamentals of linguistic theory, developing a broader perception of the complexity of language for specialists in such neighboring fields as communication, education, ESL, composition, reading, foreign language, literature and social sciences. (ASII)</td>
<td></td>
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<tr>
<td>LIN360</td>
<td>African American English</td>
<td>3</td>
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<tr>
<td></td>
<td>Explores the development and the structure of dialects of African American English, identifying phonological, morphological, syntactic, semantic and lexical differences that contribute to the richness and vitality of the language.</td>
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<tr>
<td>LIN370</td>
<td>Gender Issues in Language</td>
<td>3</td>
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<tr>
<td></td>
<td>Explores the intersection of language and gender, examining gender-related stylistic variation in conversation between women and men as cross-cultural communication.</td>
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<tr>
<td>LIN380/580</td>
<td>History and Structure of the English Language</td>
<td>3</td>
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<tr>
<td></td>
<td>Reviews the structural changes and the political, social, and intellectual forces that have shaped the English language. Explores grammars and tools of linguistic analysis.</td>
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<tr>
<td>LIN401</td>
<td>Teaching English as a Second Language</td>
<td>3</td>
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<tr>
<td></td>
<td>Instruction in the transfer of a student's native speaker knowledge of English to develop ESL teaching techniques suitable for teaching ESL under tutorial arrangements. Opportunities for service learning experience.</td>
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<tr>
<td>LIN407</td>
<td>International Business Communication</td>
<td>3</td>
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<tr>
<td></td>
<td>Focuses on issues attending business communication in linguistically and culturally diverse contexts.</td>
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<tr>
<td>LIN499</td>
<td>Independent Study</td>
<td>3</td>
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<tr>
<td></td>
<td>Provides the opportunity to pursue individual study with a professor on a mutually determined topic in linguistics.</td>
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</tr>
</tbody>
</table>
The All-College Honors Program offers qualified students an opportunity to enhance their education in a challenging and rewarding atmosphere of small, enriched classes and close faculty supervision. Honors students are chosen from the top ten percent of entering freshmen. Selection is based on S.A.T. and A.C.T. scores, high school average and rank in class, and the strength and diversity of the student’s curriculum and extracurricular activities. Approximately one hundred freshmen from all majors are invited each year into the Honors Program. Those completing all four years of the Honors curriculum graduate with special distinction.

The Honors curriculum parallels the courses in the college's Core Curriculum, which are required of all Canisius students. Like the Core Curriculum, the Honors Program seeks to provide breadth and coherence to the student's education. However, the Honors Program offers many special advantages which are difficult to find in a conventional educational setting. Class sizes are small, ranging from no more than twenty students during the freshman year to approximately fifteen during the senior year. The Honors Program fosters interdisciplinary study, encouraging students to make connections between the disciplines and stimulating faculty to present innovative, team-taught courses.

### Honors Curriculum

The Honors curriculum includes four courses in the first year and four in the second. In the third and fourth years, students take a total of four seminars. In addition, there is a special Senior Thesis and Senior Seminar. The specific courses may change from year to year. The following list gives the required areas and some of the courses that are scheduled for 2005-2007.

#### First Year:
- Composition and Literature (HON 101-102)
- Religious Studies (HON 130)
- Philosophy (HON 120)

#### Second Year:
- History (HON 220, 221)
- Social Science (HON 230)
- Religious Studies (HON 241)
- Philosophy (HON 215)

#### Third/Fourth Years:
- Required: Science and Technology (HON 398, 401)
- Electives (three of the following):
  - Social Sciences (HON 331, 355)
  - Art and Literature (HON 304, 315, 329, 393)
  - History (HON 305, 329)
  - Philosophy (HON 311)
  - Religious Studies (HON 324)

#### Fourth Year:
- Senior Thesis (HON 450)
- Senior Seminar (HON 454)

**Note:** Each student is also required to take two courses in mathematics and two courses in foreign languages.

### COURSES: 2005 - 2007

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HON 101-102</td>
<td>Literature and Composition I and II</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Various literary genres. Works by writers representing wide variety of places, times, nationalities, philosophies. Student's writing refined through these readings and through composition assignments.</td>
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<tr>
<td>HON 120</td>
<td>Honors Philosophy I</td>
<td>3</td>
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<tr>
<td></td>
<td>Study of works by Plato, Aristotle, Augustine, and Anselm of Canterbury, as well as selected recent work in philosophy.</td>
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<tr>
<td>HON 130</td>
<td>Religious Experience of the East</td>
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<tr>
<td></td>
<td>Comparative study of aspects of Buddhist, Confucian, Hindu and Muslim traditions. Topics include man and his predicament, the sacred, ethics, the mystic experience.</td>
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<tr>
<td>HON 215</td>
<td>Honors Philosophy II</td>
<td>3</td>
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<tr>
<td></td>
<td>Study of Thomas Aquinas, Descartes (or other rationalist), Hume (or another empiricist) and Kant, as well as selected recent work in epistemology or metaphysics.</td>
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<tr>
<td>HON 220</td>
<td>Problems in Modern European History</td>
<td>3</td>
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<tr>
<td></td>
<td>Relationship between culture and society in Europe from the end of the 18th to the beginning of the 20th century.</td>
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<tr>
<td>HON 221</td>
<td>Problems in Modern American History</td>
<td>3</td>
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<tr>
<td></td>
<td>Selected topics in American history.</td>
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<tr>
<td>HON 230</td>
<td>Justice and the Political Order</td>
<td>3</td>
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<tr>
<td></td>
<td>The quest for justice as one of the central and enduring characteristics of human communities. The limits of politics as a means of achieving justice.</td>
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<tr>
<td>HON 231</td>
<td>Crime and Society</td>
<td>3</td>
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<td></td>
<td>A study of how crime evolves out of various environmental determinants.</td>
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<tr>
<td>HON 238</td>
<td>The American Presidency</td>
<td>3</td>
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<tr>
<td></td>
<td>A careful examination of the American Presidency and how it has been shaped over time.</td>
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</tr>
<tr>
<td>HON 241</td>
<td>The Western Religious Tradition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to and survey of the Western political tradition. How scholars compare the phenomena of religion. Survey of belief systems in the Western political tradition.</td>
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<tr>
<td>HON 304</td>
<td>The New Woman in Literature</td>
<td>3</td>
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<tr>
<td></td>
<td>The emergence of the figure of “new woman” in nineteenth-century literature and the ways in which this literary type has influenced modern literature.</td>
<td></td>
</tr>
</tbody>
</table>
HON 305 History of the Civil Rights Movement
The historical forces leading to and the major events of the civil rights movement in America. Careful attention to the impact of this movement on American culture.
HON 311 Marx, Nietzsche, Freud
Careful analysis of major works by these seminal thinkers and an analysis of their influence on modern thought.
HON 315 Biography and Autobiography
In-depth study of biographical and autobiographical texts in a variety of forms and traditions from Plutarch to the present.
HON 324 Myth, Ritual, and Symbols
Anthropological approaches to academic study of religion. Defining and interpreting elements that comprise religion and how these elements relate to broader social and cultural contexts.
HON 325 Time in Philosophy and Cross Cultures
How time is envisaged in various cultures.
HON 329 Russian History and Literature
Russian history from the Decembrist Revolts to the Cold War, emphasizing how major literary texts have represented this period.
HON 330 Contemporary Poetry
A study of American poetry from the end of World War II to the present.
HON 331 The Science of the Mind
The dilemmas posed by the mind-body problem of consciousness. Proposed solutions from the work of Descartes, Kant, Freud and Skinner.
HON 331 Biotechnology
An examination of recent developments in Biotechnology and how they have shaped contemporary society.
HON 355 Media Culture
Assessment of the political economy of popular culture production, distribution, and consumption relative to how media ownership, financing, and social control affect content.
HON 385 The British Monarchy
The British monarchy from early times to the present.
HON 390 The Age of Michaelangelo
A study of art and culture in the Italian Renaissance.
HON 393 Nineteenth Century Literature
A seminar in nineteenth century literature examining central texts from British, American, and European traditions.
HON 401 Technology and Literature
Historical approach to the development of modern physical science from Galileo to Einstein. Seminar course based upon original scientific works and laboratory experience.
HON 450 Senior Thesis
Independent research on topic selected by student, culminating in research paper. Student works closely with faculty advisor.
HON 454 Senior Seminar
A capstone seminar which uses interdisciplinary work to offer points of synthesis in the student’s four-year Honors program experience.

Although not a major at Canisius, several departments have gotten together to identify the courses that would help students prepare themselves for one of the most exciting and rewarding career paths in America today. These courses are designed to enable students to participate in decision-making processes and develop solution techniques for applications encountered in current and future financial markets. The identified courses develop the analytical methods necessary for effective participation in the fields of risk management and financial engineering. Significant course work is devoted to the development of financial, mathematical, statistical and computer skills. These skills are necessary to evaluate the uncertain outcomes found in financial applications. Members of the departments involved believe the courses provide students from their majors with the opportunity to apply their knowledge and skills to projects that utilize quantitative financial tools and techniques.

Recommended courses
from departments other than the student’s major:

**Economics B. A. students with a Finance concentration** should take MAT 111, MAT 219 and MAT 191, as well as CSC 111, CSC 212, CSC 213 and either CSC 310 or CSC 350.

**Math & Statistics majors** should take FIN 301, ECO 455, FIN 314 and FIN 480, as well as CSC 111, CSC 212, CSC 213 and either CSC 310 or CSC 350.

**Computer Science majors** should take MAT 111, MAT 219, MAT 191 and either MAT 351 & MAT 352, or ECO 255 & ECO 256; as well as ECO 455, FIN 301, FIN 314 and FIN 480.

If you are a student in good standing and interested in exploring the program, please contact:
Dr. George Palumbo, Chair of Economics and Finance at 716-888-2667
or
Dr. Leonid Khinkis, Chair of Mathematics and Statistics at 716-888-9793
or
Dr. Jeffrey McConnell, Chair of Computer Science at 716-888-2434
The Center for Professional Development designs, develops and conducts training programs for the general public as well as specific businesses, associations and not-for-profit organizations.

Canisius College Center for Professional Development provides managers the critical skills necessary to effectively lead their organizations by offering personalized, proven, professional training and consulting.

Public Workshops, Training Programs and Video Teleconferences
Workshops and continuing education programs are open to the general public and are offered during the day, evening and on the weekends. These programs are offered at both the Main Street and Amherst campuses. Programs are also offered as live video conferences throughout New York State and as asynchronous web based programs. Public workshops are non-credit-bearing.

Public Workshops Topics
Leadership Development Certificate Program for Women, Fundamentals of Public Relations, Fundamentals of Fundraising, Developing and Implementing a Strategic Plan, Paralegal Certificate Course, Insurance courses, Management Development Program and Project Management are examples of the programs offered. New programs are added each year. The next Western New York Leadership Conference is scheduled for Fall 2006. Please contact Leslie Lewis, program coordinator, regarding any public workshops at 862-4600 or email lewisl@canisius.edu.

Customized Training and Consulting
Business Programs provide knowledge and skills in core competencies:
- Accounting & Financial
- Information Technology
- Management & Leadership
- Marketing
- Communications

Programs are available in half-day workshop or extended certificate programs.

How The Center Works With You
The Center for Professional Development specializes in customized training programs, tailored to meet the specific needs of your employees.

1. The associate dean of external business programs will meet with the president or HR manager or other executive to complete a needs assessment and develop expected outcomes. There is no obligation on the part of the organization.
2. The Center for Professional Development will prepare a proposal outlining a training program covering content and expected outcomes.
3. The associate dean and faculty members will meet with you and/or your key staff to design your unique workshop and materials.
4. Programs can be conducted at your site, at the Canisius Center @ Amherst or at the Canisius Main Street campus.
5. The program will be evaluated for outcomes with a written summary provided to your organization.

To discuss how our training opportunities can benefit your organization, call Maureen Millane Rusk, associate dean, at 716-862-4600 or email millane@canisius.edu.

CANISIUS CENTER @ AMHERST CONFERENCE FACILITY
300 Corporate Parkway  |  Amherst NY  14226  |  716-862-4600

Canisius Center @ Amherst provides organizations the finest quality conference center, catering and customer service.

The Canisius Center @ Amherst, located at 300 Corporate Parkway (off Maple Road near Sweet Home), is an 8,000 square foot conference facility with five conference rooms, boardroom and 24-seat computer lab. The rooms, all with Internet access, are available for rent to the general public on a 1/2 day and daily basis. Catering service is available.

To discuss your conferencing needs, call Amy Diati, conference manager, at 716-862-4600 or email diatia@canisius.edu.
The Women’s Business Center, located at the corner of Main and Leroy, was established to support the success of entrepreneurs and small business owners with a focus on, but not limited to women, in Erie County and surrounding areas including Buffalo, Rochester, Jamestown and Niagara Falls. The WBC provides services in three areas: training, counseling, coaching, and networking. Networking will serve as a major component of all programs to ensure that every participant has made appropriate connections with business and community resources.

Training includes the eight-session Basics for Business Success program, which provides business skills for new and/or existing businesses, and the four-session Sales & Marketing Essentials program, which helps business owners complete a marketing plan. Additional business workshops including access to capital, WBE/MBE certification, and home-based businesses are offered throughout the year on campus and at various community locations in collaboration with the SBA, NAWBO (National Association of Women Business Owners) and other organizations. Counseling is available from bankers, attorneys, accountants, insurance and business professionals. The center has computers available to participants with access to all college-subscribed databases.

The coaching program is a one year program designed to help existing business owners (or protégés) take their businesses to the next level. The program begins in November and runs for 12 months. Protégés will be matched with a coach based on skill set and receive one-on-one mentoring. Selection for the program is based on the candidate’s application and interview.

Our WIN, or Women in Networking group, is designed for women business owners to learn how to network, pass leads, support, motivate and inspire each other. This peer-to-peer mentoring model includes non-competitive businesses and each group is limited in size. Each WIN meets once a month for one hour. Additional benefits are creative problem-solving, brainstorming, strategic planning and organizational development.

Scholarships are available for all programs for economically and socially disadvantaged women.

The center acts as a bridge between academia and the entrepreneurial business community. All programs are available to undergraduate entrepreneurship majors at a reduced fee or at no charge.

This U.S. Small Business Administration (SBA) Cooperative Agreement is partially funded by the SBA. SBA’s funding is not an endorsement of any products, opinions, or services. All SBA funded programs are extended to the public on a nondiscriminatory basis.
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Canisius College Campus Map

Classrooms & Administration Buildings
A  Bagen Administration Building
B  Old Main
C  Bouwhuis Library
D  Churchill Academic Tower
E  Wehle Technology Center
F  Loyola Hall-Jesuit Residence
G  Horan-O'Donnell Science Building
H  Christ the King Chapel
I  Richard E. Winter ’42 Student Center
J  Palisano Pavilion
K  Lyons Hall
L  Montante Cultural Center
M  Health Science Building
N  Demsko Sports Complex
O  Koessler Athletic Center
P  Patrick E. Lee Student Athletic Center
Q  BlueCross/BlueShield Building
R  Demerly Hall
S  College Relations Division

Campus Housing
AA  Bosch Residence Hall
BB  Frisch Residence Hall
CC  Martin Hall
DD  Griffin Hall
EE  Campion Residence Hall
FF  Desmond Hall
GG  Village Townhouses
HH  Main-Humboldt Townhouses
JJ  Main-Delavan Townhouses

Campus Parking
1  Tower Lot
2  Old Main Lot
3  Main-Eastwood Lot
4  Eastwood Lot
6  Loring Lot
7  Lyons Hall - Lot 1
8  Lyons Hall - Lot 2
9  Lyons Hall - Lot 3
10  Village Townhouse - Lot 1
11  Village Townhouse - Lot 2
12  Village Townhouse - Lot 3
13  LBJ Lot
14  Main-Humboldt Lot
15  Main-Jefferson Lot
16  BlueCross Ramp - 3rd Level
17  Health Science Lot
18  Upper KAC Lot
19  Lower KAC Lot
20  Jefferson-Florida Lot
21  Spillman-Florida Lot
22  Main-Delavan Lot
23  Delavan Townhouse Lot

* Metro Rail Stations

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The main telephone number for the college is 716-883-7000 or you can visit us on the Web at www.canisius.edu.